# 1966 ANNUAL REPORT

# occidental petroleum corporation







Natural gas is flared and burned off in test as company makes important



1966 oil discovery in Libya on its Concession 102 with the initial well, D1-102, partly seen in foreground, flowing at rate of 14,860 barrels of clean 36.2° gravity crude oil per day. Occidental is now rapidly developing the new Augila Field.

Occidental's multimillion dollar Chemical Complex, adjacent to company's it went on stream in



Suwannee River phosphate rock mine in Florida, shown as it went on stream in August, 1966. It now produces at annual rate of 500,000 tons of phosphate chemical fertilizer products, including superphosphoric acid.

Continually rising prices and heavy demand for sulphur have led Occidental



to expand production of this important product used extensively in manufacture of fertilizers. Here, large vatted piles of sulphur are about to be loaded and shipped to customers from one of the company's plants.

## financial highlights

	1966(1)		1965(1)
Gross Revenues	661,679,000	\$60	09,380,000
Net Income\$	22,730,000	\$ :	21,192,000
Net Income Per Share <sup>(2)</sup> \$	2.05	\$	1.94
Total Assets at Year End	445,270,000	\$3	13,139,000
Additions to Property, Plant and Equipment	89,100,000	\$ 3	38,500,000
Stockholders' Equity	131,032,000	\$1	14,950,000
Dividends Paid Per Share <sup>[3]</sup> : Cash	0.70	\$	0.55
Stock	3%		4%
Cash Equivalent of Dividends(4)\$	2.11	\$	2.07
Average Number of Shares Outstanding During the Year	11,112,000		10,910,000
Number of Shareholders	58,000		39,000
Number of Employees	3,900		2,400

<sup>(1)</sup> Restated on basis of poolings of interests in connection with acquisitions.

<sup>(2)</sup> Based on average number of shares outstanding after giving retroactive effect to (a) 4% stock dividend declared in December 1965 and issued in January 1966, (b) 4% stock dividend declared in November 1964 and issued in January 1965, and (c) the issuance of capital stock in connection with acquisitions in 1966 and 1967 accounted for as poolings of interests.

<sup>(3)</sup> Present annual dividend rate 80 cents per share payable quarterly.

<sup>(4)</sup> On the basis of the closing price on the New York Stock Exchange on the date each 4% stock dividend was paid, \$37%% on January 21, 1966, \$47%% on February 10, 1967.

# 1900 corporate highlights

The principal corporate developments discussed in this report are:

New records for revenues and income. Net income \$2.05 per share, 6% increase in per share earnings with 202,000 more shares outstanding. Net earnings up 7% to \$22,730,000. Total consolidated revenues reached \$661,679,000, an increase of 9% over 1965.

Cash dividend rate continues to rise — \$.50 per share in 1963-64; \$.60 in 1965; \$.70 in 1966, and an \$.80 per share rate in 1967. Stock dividends paid in each of last 5 years.

Record investment in new property, plants and equipment — \$89.1 million in 1966 vs. \$38.5 million in 1965.

Addition of approximately 77 million tons of high-grade phosphate rock in Owens-Illinois, Inc. 40,000-acre tract adjoining our Suwannee River Mine in Florida, bringing total phosphate reserves proven thus far to approximately 161 million tons.

Addition of an estimated three million tons of sulphur through our discovery at Lake Hermitage, 30 miles south of New Orleans, Louisiana.

**Exploration continues** in Tunisia for phosphates, potash and saline minerals with major deposits indicated.

Major oil discovery of Augila field in Libya confirmed by five producers in a row with stabilized flow test rates averaging approximately 10,000 barrels a well per day for a total of close to 50,000 barrels of oil per day developed thus far. Exploration continuing on several additional promising areas on Concessions 102 and 103.

Total gain in domestic oil production of 47% over 1965, with principal increase attributable to East Beverly Hills and Sawtelle oil fields in Los Angeles Basin. Ninth consecutive successful well at East Beverly Hills completed for 4,732 barrels per day, making this the company's largest domestic oil well to date.

Second year that oil and gas exploration program was 100 percent Occidental — without outside participants. (Approximately \$21 million expended for exploration in 1966, compared with \$4.5 million in 1965).

New discoveries: Texas, East Pheasant, Matagorda County (oil and gas) — Louisiana; West White Lake, Vermilion Parish (gas), North Leroy, Vermilion Parish (gas), Louisiana Offshore, Block 63 (oil).

First entry into the field of crude oil marketing through acquisition by merger of The Permian Corporation followed by acquisition of Mc-Wood Corporation. These companies together market approximately 500,000 barrels of U.S. crude oil per day, equal to about half the total daily production of the State of California.

Record earnings for Jefferson Lake Sulphur Division—Sulphur Division's net profits from operations reached \$5,164,000, up 86% over 1965, not including \$6 million gain from the sale of a one-eighth working interest in Lake Hermitage.

Petrogas Processing Ltd. \$16 million plant expansion progressing toward completion in April, 1967, approximately doubling plant output of sulphur, natural gas and gas liquids from the East Calgary Field. (Petrogas is operated and 31% owned by Jefferson Lake Petrochemicals of Canada Ltd.)

Suwannee River Chemical Complex completed in record time. Doubling of Suwannee River Phosphate Mine production to 3 million tons per year scheduled for completion in April 1967.

Second commercial superphosphoric acid plant using Occidental's patented process completed with production sold out, at both the Lakeland and Suwannee River plants.

**OXYTROL** set up as separate company division with new manufacturing facilities to market Occidental's patented food preservation process using nitrogen controlled atmosphere.

Saudi Arabian \$30 million Ammonia-Urea Project under way with construction contract awarded to Chemical Construction Corporation of New York. Saudi Arabian \$19 million Sulphur Recovery Plant Project under feasibility study; expected to add 150-250 thousand tons of sulphur production annually.

Moroccan Phosphate Fertilizer Project — final engineering and marketing study in progress by Dorr-Oliver Engineering Co. and Arthur D. Little & Co.

Formation of Minerals Exploration Division with explorations in progress in Morocco (copper) and Nevada and Arizona (iron and copper).

Company geologists estimate Walker Indian Reservation deposit contains indicated reserve of approximately 300 million tons of 40% iron ore, which can be beneficiated to produce 68% iron pellets. Copper found in conjunction with iron ore is being evaluated to determine commercial feasibility.

Acquisition of Deane Brothers, Inc., innovators in homebuilding and merger with S. V. Hunsaker & Sons, Inc. under Deane Brothers' management.

Successful \$61 million debenture rights offering—\$25 million 20-year financing of Florida chemical complex completed with group of insurance companies—Refinancing of long-term debt of Permian (\$10 million) and McWood (\$7 million)—making total long-term financing of \$103 million in 1966.

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# report of the president to the shareholders

Perhaps the best way to describe your company's achievements during the past year is to quote from an article in *The Commercial and Financial Chronicle* of February 21, 1967, by Ira U. Cobleigh, noted economist, entitled: *Reporting on the performance and the promise of one of the most rapidly growing oil-oriented companies in America.* "One of the remarkable companies of

our time is Occidental Petroleum. Imagine a company grossing less than \$1 million in 1959, and now seven years later, reporting sales of over \$400 million in 1966; and with 10.4 million shares of common outstanding with an indicated market value of \$500 million. This is the company, and OXY is the stock that has rewarded long-term investors handsomely and turned in an



**Dr. Armand Hammer**President and Chairman of the Board

impressive market performance during the first weeks of 1967."

Kerr & Co., engineers who publish a widely circulated oil, gas and chemical service, in an appraisal of Occidental shares issued recently, stated the facts even more succinctly as follows: "Any evaluation of the company's operations in 1966 is not too meaningful since the importance of the various divisions will be materially changed by 1967. Moreover, any one of several OXY activities now under development, which have not made any contribution to earnings, could suddenly prove profitable and result in a tremendous new expansion in earnings for the enterprise. In fact, OXY is growing so rapidly through internal development and by acquisition that any survey of the company's operations is virtually out of date by the time it is released."

1966 was the 47th year of your company's existence. In the past year, as in each of the preceding nine years under present management, new records of growth were established.

Consolidated net income for 1966 amounted to \$22,730,000, as compared with \$21,192,000 for the previous year, an increase of 7%. Per share earnings were \$2.05 on 11,112,000 average shares outstanding during the year, compared with \$1.94 per share on 10,910,000 average shares for 1965. This is an increase of 6% in per share earnings with 202,000 more shares outstanding. Consolidated revenues for 1966 were \$661,679,000, compared with \$609,380,000 in 1965, an increase of 9%. Consolidated revenues and earnings have been restated on a pooling-of-interest basis for each year to include those of the recently acquired Permian and McWood corporations.

Capital investments in new property, plants and equipment made during

1966 amounted to \$89,100,000, approximately \$50,600,000 greater than the previous year's record capital expenditures of \$38,500,000. The largest single area of expansion consisted of our investment in the North Florida phosphate industry, for our chemical complex and mine expansion.

The value of Occidental's diversification was illustrated in 1966 by the increase in sulphur division earnings, which more than offset the reduced earnings from the homebuilding division due to the depressed real estate market, caused largely by the unavailability of mortgage money. This situation promises to be greatly improved in 1967.

Cash dividends were paid during 1966 at the annual rate of 70¢ per share, having been increased by 10¢ per share in each of the previous two years, and were again increased to an annual rate of 80¢ per share commencing in January, 1967. The company's stock dividend policy, also begun in 1962, was continued with a 3% stock dividend paid in February, 1967.

### Oil and gas

Your company's oil and gas activities have taken on a new dimension with the recent acquisitions of The Permian Corporation of Midland, Texas, and the McWood Corporation of Abilene, Texas. Previously, Occidental's oil and gas operations consisted principally of exploration and production. With the above-mentioned acquisitions, your company has become a major crude oil purchaser and marketer, selling to refineries and buying from wells on more than 17,000 leases serviced by approximately 4,500 miles of companyowned pipeline gathering systems. Permian and McWood operate in 16 states from the Canadian border to the

Gulf of Mexico. Through these acquisitions, Occidental now markets approximately 500,000 barrels of U.S. crude oil production per day.

### EXPLORATION AND PRODUCTION DIVISION!

During 1966 your company's Oil and Gas Exploration and Production Division, headed by our Senior Executive Vice President, E. C. Reid, recorded the following significant events: 1) The discovery of the Augila oil field on Concession 102 in the Sirte Basin of Libya by our wholly-owned subsidiary, Occidental of Libya, Inc. (OXY-LIBYA). 2) A total gain in domestic oil production of approximately 47 percent over 1965, with the principal portion of the increase being attributable to production from development wells drilled in the Beverly Hills and Sawtelle oil fields in the Los Angeles Basin of California; 3) Discovery of new shallow oil-gas pool in the East Beverly Hills field. Number of projected wells increased from 29 to over 50. 4) Expansion of exploration activity in Canada in collaboration with Jefferson Lake Petrochemicals of Canada Ltd. (PETRO-CHEM), a 62-percent owned subsidiary; and 5) Entry into offshore exploration in Texas and Louisiana.

Oil and Gas Discovery in Libya

"A Pillar of Fire" was the description applied by international petroleum journals to the sky-high black and orange column of smoke and flame rising from the burning pits during the testing of Occidental of Libya's discovery well D1-102 on the sands of Libya's Sahara Desert during mid-November, 1966. The discovery well flowed on production tests at the rate of 14,860 barrels per day of clean 36.2° gravity oil and thus became the second largest discovery well in Libya's history — second

only to Esso-Libya's C1-6 discovery well in 1959, which, at 17,500 barrels per day, opened up the mammoth Zelten field, which has yielded during its first five years of production over 600 million barrels of oil worth more than one billion dollars.

This discovery by OXYLIBYA was made in the record time of less than eight months from the time the concession agreements were formally signed on March 29, 1966, awarding Occidental the highly sought after Concessions 102 and 103 (formerly bid blocks 42B and 44, respectively) in Libva's prolific Sirte Basin, which is now producing at the rate of more than 1.7 million barrels of oil per day. Our new field is located near the northern border of Concession 102, about six miles from the nearest production in the American Overseas Oil Company (AMOSEAS) Nafoora field owned jointly by Texaco and Standard Oil of California. The very important Amal field of Mobil and the large Gialo field of Oasis lie 14 miles to the northwest and 18 miles to the south, respectively, from our concession (see map). Your company immediately began a step-out drilling program to evaluate the discovery, which has been named the Augila field after a nearby desert oasis. Our D2-102 well, located some one and a half miles southwest of the discovery, was completed at a test rate of 7,732 barrels per day and the D3-102, three miles from the discovery well, tested at a rate of 8,922 barrels per day. The D4-102, a long four mile stepout to the west, flowed at the rate of 2,200 barrels per day on a preliminary test. This well will be allowed to flow for a time to clean out the formation, following which the official production test will be made. The D5-102 has just been completed, flowing at the stabilized rate of 14,140 barrels per day of 35.2° gravity

oil. This big well is a 1½ mile southerly step-out from our discovery well. The combined flow test rates of the five wells completed to date in the Augila Field approaches 50,000 barrels of oil per day, or a daily average of about 10,000 barrels per well. The approximately 750 wells of other companies now on production in Libya produce a daily average of about 2,300 barrels per well. Our sixth and seventh wells, D6 and D8-102, have been successfully drill stem tested, indicating two more

fine producers. The success of D6, a step-out of more than six miles to the west of the discovery well, has confirmed an area of proven reserves of approximately 20 square miles. The field limits are undefined to the northeast, west and southwest and we are limited only by the concession boundary to the north. We are preparing to commence drilling operations on our eighth and ninth wells, D7 and D9-102, and reservoir studies are under way to determine the optimum spacing pattern for subse-



Libya's Sirte Oil Basin showing Occidental's Concessions 102 and 103 in relation to existing oil fields and pipelines.

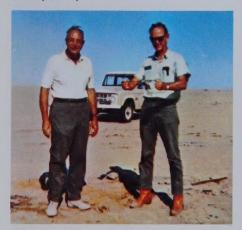
quent in-fill development drilling.

At the present time, the company is utilizing three deep drilling rigs and one completion rig on the long stepouts to define the extent of the Augila field.

The sulphur content of our Augila Field oil varies from  $\frac{1}{10}$  to  $\frac{1}{4}$  of  $\frac{1}{8}$  sulphur, compared with  $\frac{1}{2}$  to  $\frac{5}{8}$  sulphur in most of the oil produced from the Middle East and Persian Gulf areas, as well as most Venezuelan crudes. Our low sulphur oil, known as "sweet oil," is especially desirable in reducing smog



Discovery well D1-102, drilled by Occidental on sands of Sahara Desert in Libya, came in flowing at rate of 14,860 barrels of oil per day.



Company officials E. C. Reid, Senior Executive Vice President and Richard H. Vaughan, Vice President and Chief Geologist on inspection tour of Occidental concession in Libya.

and eliminating air pollution.

The discovery well was drilled on one of several geologically promising areas which were developed through our seismic studies, using the most modern computer techniques. From the results of these evaluations, your company believes that additional accumulations of oil will be found on other parts of this concession.

Our digital seismic crew moved to Concession 103 in mid-November and is in the process of surveying its 728 square miles. This concession is situated among three giant fields - Amal. Gialo, and Esso-Libya's Zelten, each of which contains billions of barrels of recoverable reserves. OXYLIBYA has commenced exploratory drilling on one of several promising prospects in this concession. In one area of interest, Pan American Libya Ltd. (a subsidiary of Standard Oil of Indiana) has recently brought in a new discovery well, B1-95, located only four miles from our north boundary, and is presently drilling a follow-up well to its discovery. Preliminary studies of our seismic data indicate that this same trend extends well into our concession, and your company has arranged for its fourth deep drilling rig to test this structure.

While it is premature at this point to discuss specific company plans for transporting and marketing its Libyan crude oil, a number of proposals are being considered. The Libyan Petroleum Law provides that, if space is available in an operating pipeline and at marine terminal facilities, such excess capacity must be made available to any other producer on a formulated tariff basis. Our Augila field is located approximately 30 miles from the field terminus of the Amal pipeline operated by Mobil Oil of Libya Ltd., which is a 30-inch diameter line extending north westerly for some 170 miles to the

Mediterranean terminal at Ras Lanuf. The line is currently carrying approximately 240,000 barrels of crude per day and can be expanded to 550,000 barrels. Esso-Libva's pipeline system. terminating at the large port facility of Marsa Brega, which is the closest marine terminal to our concessions, now handles 635,000 barrels per day and is also capable of further expansion, The British Petroleum Company has just placed into service its 34-inch diameter pipeline which passes within 90 miles of the Augila field. This line, which terminates at the deep water port of Tobruk, has an eventual capacity of 600,000 barrels per day and is presently carrying less than 150,000 barrels per day. Discussions regarding Occidental's utilization of excess capacities are presently being held with the various pipeline and port operators, and after a pipeline agreement has been reached, approximately six months should be required to lay a connecting line from our Augila field and install field gathering systems and production facilities.

Ultimate plans may involve the construction of our own pipeline system from Augila to the coast and linking any other producing areas which may be discovered in Concessions 102 and 103.

The company is actively engaged in a study regarding the feasibility of constructing an ammonia fertilizer plant, which would utilize Libyan natural gas as fuel and feed stock. If such a project is deemed feasible, the plant will be jointly owned and financed by the Libyan government and Occidental. The company has also initiated preliminary studies regarding certain agricultural projects, particularly in the area of the Kufra Oasis, which will be financed by 5% of OXYLIBYA's net op-

erating profits before computing the Libyan tax.

#### NORTH AMERICA

In the United States and Canada during 1966, your company and its subsidiary PETROCHEM participated in the drilling of 127 gross wells equivalent approximately to 74 net wells (one net well being all of the working interest in one well). Of these wells, 29 were completed as oil producers, 26 were completed as gas producers, and 72 were dry holes. This means an average of better than two producers out of every five wells drilled.

#### **CALIFORNIA**

Activities in California accounted for over one-half of the net footage of the 127 wells drilled by your company in North America during 1966. This continued dominance of California in our exploration and production effort is the result of a very favorable climate for the California producer since the state is unable to produce its demand for petroleum and therefore no prorationing is in effect. All the gas produced is sold within the state and is not subject to control of the Federal Power Commission, and consequent price regulation. Accordingly, the returns from both oil and gas are very attractive. The increase in your company's California oil production by approximately 57% over the past 12 months was primarily due to development drilling in the Los Angeles Basin at the East Beverly Hills and Sawtelle oil fields, which are expanding at a rapid pace. The increase in production from this area is further significant in that the new crude being added is of higher gravity (23° to 35°) than our older established production (principally 11° to 14°) and therefore commands a much higher price.

The Sawtelle oil field, discovered by your company a little over a year ago, now has six producing oil wells and a seventh is drilling. Sustained production is currently averaging 4,500 barrels of oil per day with 1,600 Mcf of gas. The wells are all directionally drilled from a central drillsite located about 1,200 yards from your company's executive headquarters in West Los Angeles. Approximately 1,200 acres are now under lease to your company in the Sawtelle area, and all of the working interest is owned by the company subject to certain royalty arrangements.

At the East Beverly Hills oil field, where development drilling commenced in January 1966, a total of eight wells have been producing on a sustained average daily rate of approximately 3.700 barrels of 24.6° to 35.5° gravity oil with approximately 2,500 Mcf of gas. A ninth well has just been completed at a stabilized rate of 4,732 barrels per day and promises to open up the most prolific area in the pool. There were approximately 700 feet of section perforated for production in this well, making it by far the largest domestic well in Occidental history. It is now anticipated that at least fifty wells may be required to fully develop the area, compared with our original estimate of 29 wells. If necessary, we can drill a total of 71 wells from our Pico Boulevard premises. Your company has approximately 61.5% of the working interest in this field.

All wells in this area are directionally drilled from a central drillsite located at the corner of Pico Boulevard and Doheny Drive just south of the City of Beverly Hills boundary. Occidental's "high rise" drilling location has performed exactly as planned. This was the world's first architecturally designed drilling derrick, setting a pattern for urban oil exploration and producing

operations in a manner which has enhanced the area and made your company a good neighbor.

Seven of our wells produce from Miocene sands between the depths of 6,200 and 8,000 feet, and two produce from shallower Pliocene sands between the depths of 4,300 and 5,400 feet. Oil and gas are marketed through pipeline connections extending under the city streets from our producing facility to local refineries.

In the Santa Maria Basin, Santa Barbara County, where your company has 10 oil wells on production in the Cat Canyon and East Santa Maria oil fields, three additional wells are scheduled for drilling in the first quarter of 1967. In the San Joaquin Basin, Kern County, three oil wells were completed in our Gabriel lease in the McKittrick oil field in conjunction with our commercial steamflood on that property.

Your company's thermal recovery operations are all conducted in California in so-called "heavy gravity" reservoirs where both fire and steam, or a combination of both processes, have been in operation for some time. A total of five operations, averaging at present approximately 3,500 barrels per day, are now considered commercial in the light of production and economic history and three more are still in the pilot stage. In the Placerita oil field, Los Angeles County, where fireflood and steamflood operations are in progress, the reservoir has responded to both processes and your company plans to commence an expansion of the project. In the White Wolf oil field, Kern County, a pilot fireflood operation was commenced in May, 1966. By December, 1966, the fire front in one of the reservoirs had reached one of the producing wells and a good increase in production rate resulted. Plans are to continue the pilot operation until addi-



Occidental's architecturally designed and aesthetically landscaped drill site at corner of Pico Boulevard and Doheny Drive in West Los Angeles earned for the company a Los Angeles Beautiful Award. Inset shows how corner looked before Occidental built the beautified drill site and the high-rise rig (foreground), which has successfully completed nine wells in succession.

tional information is available for justification of a full scale expansion. In the East Santa Maria oil field, Santa Barbara County, pilot steamflood operations are in progress and consideration is being given to commencing a pilot fireflood. The oil in place under your company's holdings in East Santa Maria amounts to approximately 400 million barrels, all of which is non-producible without the application of heat. The size of the target easily justifies the continued pilot operation.

Recently a major improvement in steaming technique was discovered by your company's engineers, which should materially improve the production rate from steamflood projects. If, as is expected, some of the pilot projects can be expanded to full scale operations during 1967, a significant increase in income from all thermal operations should result.

In the Sacramento Valley of California during 1966, your company completed one oil well in the Brentwood oil and gas field, Contra Costa County, and a total of five gas wells. Three of the gas wells were completed in the new Sherman Island gas field, Sacramento County, and are capable of delivering approximately 18,000 Mcf per day upon demand. Contract negotiations are currently in progress, and it is expected that excellent terms will be achieved because of the proximity of the wells to the industrial complex surrounding the Antioch area. Your company owns approximately 63 percent of the working interest in these wells. The other two gas wells completed in the Sacramento Valley were in the Clarksburg gas field, Yolo County, discovered by your company in 1963. One of the wells discovered a gas accumulation in the Upper Cretaceous "F" Zone near 11,000 feet, and was completed from this zone. The

other well was a follow-up to the "F" Zone discovery, and extended the field approximately one and one-quarter miles to the northwest. The new gas discovered during 1966 will be dedicated to the contract with an industrial consumer in the area to whom deliveries commenced in January, 1966. Your company owns approximately 62% of the working interest in these new Clarksburg wells.

Production performance from our Lathrop, Brentwood, Dutch Slough and other Sacramento Valley gas fields continues to be excellent. In Lathrop, our production is sold under our long-term contract with Pacific Gas & Electric Co. at a minimum guaranteed purchase obligation of 100,000 Mcf per day at 261/2¢ per Mcf in accordance with our interim agreement.

#### **ROCKY MOUNTAINS**

Throughout 1966 Occidental continued its established policy of inducing drilling by other companies on or near your company's land blocks by contributing an interest in its leases. Ten wells were drilled either on or offsetting company properties as a result of this policy, and one of the wells was successful in extending the Wellington oil field in Larimer County, Colorado. Your company has subsequently completed three oil wells in which it owns 50% of the working interest within this field.

Approximately 220,000 acres were under lease to your company on December 31, 1966, in the Rocky Mountain states of Colorado, New Mexico, North Dakota, Montana, Utah, and Wyoming. The present farmout policy will continue throughout 1967.

TEXAS AND LOUISIANA ONSHORE Onshore exploration in Texas and Louisiana in 1966 has resulted in the completion of three gas-condensate new field discoveries. The East Pheasant oil and gas field discovery, Matagorda County, Texas, was placed on production during November, 1966. The West White Lake gas field, Vermilion Parish, Louisiana, discovery well was completed in June, 1966 and is now on production. A total of 5,700 acres are under lease in this area. Also in Vermilion Parish, your company completed a discovery well in the North Leroy gas field in November, 1966, and is presently negotiating a gas sale contract for this new field. Two additional wells in the LaCal Frio oil and gas field in Willacy County, Texas, were completed in 1966.

TEXAS AND LOUISIANA OFFSHORE During 1966, Occidental participated in the drilling of seven wells in the Gulf of Mexico offshore from Texas and Louisiana. This important step into the waters of the Gulf was taken in a search for large reserves in an area of thick sand sequences and large structures. Most of the large oil and gas producing companies are actively exploring and developing oil and gas fields in the offshore waters and many have formed combines to share the risk, because of the high offshore operating costs. In Louisiana, Occidental owns 14.25 percent interest in a group known as the Independent Offshore Venture, with Southern Natural Gas Company as operator. This exploration group drilled six wells during 1966 with two completions. Further drilling on the 4,590acre Block 63 discovery is expected in early 1967, and the Venture is currently conducting seismic work on a number of prospect leads on Federal acreage which is expected to come up for competitive bids in mid-1967.

We have also formed a joint venture with the Cabot Corporation to evaluate seismically prospective areas in Federal



View of jackup rig at work in offshore waters as it drills for crude oil on company's Texas lease in Gulf of Mexico.

waters off Texas which are expected to be put up for lease in late 1967. A number of high quality structural prospects have already resulted from the seismic evaluation. We expect to be in excellent position to competitively bid for the Federal acreage.

#### **CANADA**

Exploratory and development drilling by Jefferson Lake Petrochemicals (PETROCHEM) in and around the Calgary gas field resulted in the completion of twelve gas wells. This will provide additional deliverability for the increased sales of gas in 1967 to Trans-Canada Pipe Line and Westcoast Transmission from the Petrogas Calgary Plant, with a consequent increase in accompanying sulphur production.

During 1966 your company with PE-TROCHEM commenced a \$6 million annual joint venture exploration program to explore the Provinces of Alberta, British Columbia, Saskatchewan, and Manitoba on a 50-50 basis. Six exploratory dry holes were drilled during the year by the joint venture and one exploratory well extended the Stoddart Gas Field for three miles in British Columbia.

At December 31, 1966, the joint venture owned varying interests in leases, permits and drilling reservations, covering a total of 2,137,499 gross acres in the four provinces. The lands to be prospected for oil and gas are located in the Rainbow area of Northwestern Alberta and Northeastern British Columbia; the Gilwood Sand Trend of North-Central Alberta; the Crossfield sour gas trend of Southern Alberta; the Jurassic trend of Southwestern Saskatchewan; the Winnipegosis reef trend of Saskatchewan; and the Belloy Sand area of East Central British Columbia. Joint ventures have been formed with other companies including the Banff OilAcquitane Group to explore the rich Rainbow area in which prolific reserves of oil are continually being discovered and developed, mainly through the use of seismic techniques.

The Occidental-Petrochem joint venture has assembled its most extensive lease position in the Winnipegosis reef trend which the industry generally believes will yield discoveries comparable to Rainbow. Detailed geologic analysis and seismic surveys are now being conducted to select appropriate test well locations, and a multi-well wildcat program is planned for 1967.

### CRUDE OIL MARKETING DIVISION

THE PERMIAN CORPORATION

At the end of October, 1966, Occidental extended its oil activities into the field of crude oil marketing through the acquisition of The Permian Corporation of Midland, Texas, by an exchange of ¾ths of a share of Occidental's stock for each share of Permian. Since that time Permian has been operating as a wholly-owned subsidiary of Occidental under the direction of its President, Walter R. Davis, who also serves as Executive Vice President for Operations of Occidental.

Permian's net earnings for the calendar year 1966, after provision for Federal income tax, amounted to \$5,518,806, equivalent to \$3.17 for each of the 1,742,759 Occidental shares issued for its acquisition. Before provision for Federal income tax, Permian's 1966 earnings were \$8,752,-300, equal to \$5.02 for each Occidental share issued to acquire it. In 1967, Permian will have the benefit of the income tax deductions developed through Occidental's exploration and drilling activities so that Permian's entire pre-tax income will be added to Occidental's earnings.

The Permian Corporation is engaged in the business of purchasing, gathering and marketing crude oil in 16 states of the United States. At year end, its operating facilities included 2,134 miles of pipeline gathering systems with a daily throughput capacity of 301,800 barrels, 407 tank trailers and 440 tractors, 18 truck terminals, /9 barge terminals, and storage facilities with a total capacity of approximately 3,305,000 barrels. Permian's gathering systems at the end of 1966 had twice

the pipeline mileage of five years ago.

During 1966, Permian handled 106,-391,542 barrels of crude oil or an average of 291,484 barrels per day. This represented an 11% increase over the volume handled during 1965 and a 43% increase over the volume of five years ago. In November, 1966, a new record for one month was established when a daily average volume of 300,-099 barrels was handled. Sales of crude oil in 1966 amounted to \$306,058,418, 16% over 1965 sales and up 63% from



President Dr. Armand Hammer, left, and Walter R. Davis, executive vice president for operations, confer upon completing business trip in company jet plane.

the sales of five years ago.

There has been no letup in the increasingly strong demand for domestic crude oil. Stepped-up refinery requirements have resulted in increases in allowable production in those states which control well production and better markets were available in those states which do not control production. For the foreseeable future, the demand for domestic crude oil is expected to remain firm, which should give Occidental an increasing cash flow with quality

earnings.

Permian presently owns 80% of the capital stock of J. B. Knight Company, Brownfield, Texas, owner of patents and fabricator of the "Tri-Matic" agricultural sprinkler irrigation system. This system is considered to be superior to anything now on the market. Present projections for the coming year estimate gross sales at \$7,000,000.

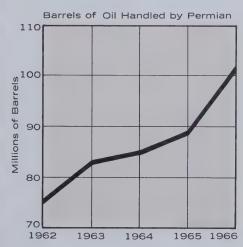
Recently the J. B. Knight Company acquired the patents covering a new type of automated sprinkler irrigation

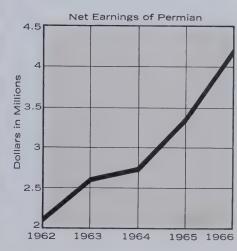
system which irrigates in a circular pattern as opposed to moving laterally as in the case of the "Tri-Matic" system. These patents give the company the advantage of being the only supplier having two distinctively different automated systems covering the entire sales fields of sprinkler irrigation.

Occidental, through its fertilizer divisions, has distributorships in sections of the United States in which J. B. Knight Company is concentrating its sales programs — principally in Texas,



Occidental Building in Houston, Texas, serves as new headquarters for Agricultural Chemicals Division, The Permian Corporation, Jefferson Lake Sulphur Company and Regional Division for Oil and Gas Exploration and Development.





Idaho, California, Washington and Oregon. Plans are now in operation to use these distributorships to further the sales of Knight's irrigation systems as well as to use the present outlets of the J. B. Knight Company for furthering sales of Occidental's fertilizer products.

During the past several years, Permian has been making modest investments in several experimental projects which may ultimately prove very profitable to the company.

One of the experimental projects consists of a patented portable liquid recovery apparatus that will recover gas liquids from gas produced by oil wells, which otherwise could not be recovered except by the installation of an expensive recovery plant. The device operates on the natural pressures of the wells and, having no moving parts, requires no attention. Tests to date on wells in the West Texas vicinity have been very successful. Manufacturing will commence shortly on the first group of these units, which will be marketed on a lease basis. The use of this device could have great impact in the Middle East and Libya where gas, rich in oil distillate, is being flared and wasted.

#### McWOOD CORPORATION

On March 1, 1967, the assets of Mc-Wood Corporation, Abilene, Texas, were acquired by your company through the exchange of .412 of a share of Occidental stock for each share of the capital stock of McWood for a total of 732,573 Occidental shares. Since that time Mc-Wood has been integrated into Permian.

McWood's excellent history of operations, revenues and earnings is shown in table above which gives comparative operating highlights from the past five fiscal years, including the net earnings per share of Occidental stock issued in the transaction.

		Net Cash Flow		Net Earnings After Provision For Federal Income Tax		
Fiscal Year	Bbls of Crude	Per Occidental		Per Occidental		
Ended May 31	Oil Gathered	Total	Share	Total	Share	
1966	59,487,745	\$4,888,000	\$6.67	\$2,049,000	\$2.80	
1965	57,058,408	\$3,988,000	\$5.44	\$2,012,000	\$2.75	
1964	41,943,965	\$2,628,000	\$3.59	\$1,489,000	\$2.03	
1963	33,759,639	\$1,622,000	\$2.21	\$ 699,000	\$ .95	
1962	26,115,632	\$1,033,000	\$1.41	\$ 467,000	\$ .64	

Five year summary showing growth of McWood Corporation in terms of barrels of crude oil gathered, net cash flow and net earnings.

As in the case of Permian, McWood will have the benefit of Occidental's income tax deductions and McWood's entire pre-tax earnings will be added to Occidental's net profits.

### Crude Oil Purchasing, Transportation and Sales

McWood's crude oil marketing activities were conducted principally in the states of Texas and Louisiana, although it had lesser operations in 10 additional states. Most of the crude is sold to major oil companies which either operate pipelines connected to McWood's storage tanks or have refineries located adjacent to such storage.

At December 31, 1966, McWood operated 2,344 miles of pipeline gathering systems, 129 oil transport trucks and 4 barge terminals, and had storage capacity aggregating 1,832,755 barrels.

McWood owns and operates three refineries located at Abilene, Fort Worth and Longview, Texas, with an aggregate daily throughput capacity of about 22,000 barrels.

#### **Natural Gas Processing**

McWood owns and operates three natural gas processing plants located in Taylor County, Texas; Sabine Parish, Louisiana; and Morrow County, Ohio. The company purchases gas for these

plants from producers and after removing the liquid hydrocarbons contained therein, sells the recovered liquids and the residue gas.

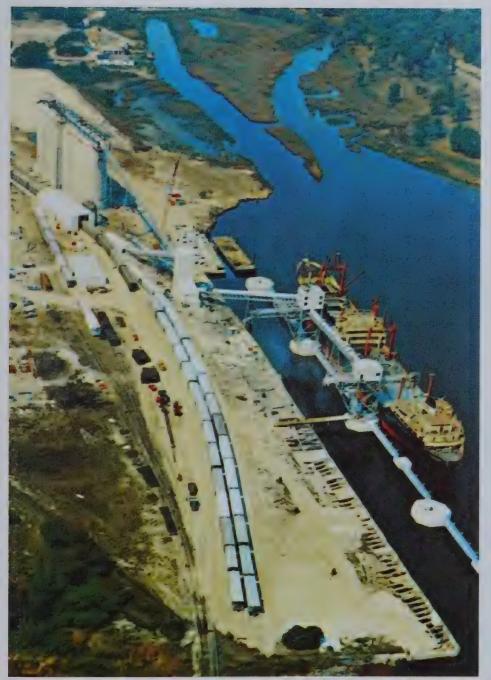
It is estimated that the consolidation of McWood's operations with those of The Permian Corporation will result in an annual saving of at least \$1,500,000 through a decrease in general and administrative expenses, the consolidation of the trucking operations and the integration of area, district and pipeline operations.

## tertilizers

### agricultural chemicals

The continuing world population explosion, aided by the many improvements in medical technology and yet abated but little by population control, has focussed the attention of the world upon the fertilizer industry. The use of fertilizers is the major method of providing the expanding number of peoples of the world with foodstuffs.

It is anticipated that, at the present rate of growth of the fertilizer industry in this country, in the next three years our requirements for fertilizers will have increased 50% over 1966. If we are to take care of the food requirements of



First shipment of phosphate rock from Suwannee River mine being loaded aboard freighter for West Germany at company's new terminal in Jacksonville, Florida.

the underdeveloped countries of the world, the need for fertilizers is far beyond the present capacity of the fertilizer industry, and a tremendous expansion of production, both here and abroad, is required. Your company has expanded its operations in 1966 to a very considerable extent. The major developments during the year of 1966 were:

First, the Suwannee River phosphate rock mine, brought into production in the latter part of 1965, continued its operation in 1966 and a new construction program expanding the capacity of the mine to 3 million tons is about completed.

Second, the Suwannee River phosphate chemical complex was brought into production during the late summer of 1966. This plant has a capacity of roughly 400,000 tons per year of solid fertilizers such as triple superphosphate or diammonium phosphate and roughly 100,000 tons per year of superphosphoric acid. This plant came on stream in record time for one of this size and reached a very high production rate much sooner than we had anticipated.

Third, the Research & Development Center in Lakeland, Florida early in 1966 turned its pilot plant into a production unit and is producing superphosphoric acid and high analysis liquid fertilizers made therefrom on a commercial basis.

Fourth, expansion and modernization programs were carried out at the company's plants in California and Texas as well as throughout the Green Belt, Summers and Ashkum divisions. Improved operations were experienced during the year at these plants and a greater improvement is expected in 1967.

Finally, 1966 witnessed a further expansion of our international fertilizer activities through our world wide mar-

keting arm, International Ore & Fertilizer Corporation (INTERORE), and through the development of industrial fertilizer projects in Saudi Arabia, Morocco and Tunisia.

## OCCIDENTAL AGRICULTURAL CHEMICALS CORPORATION (OXYCHEM)

1966 has been a year of consolidation and grouping for Occidental's domestic fertilizer division. It was necessary during this year to build a sales staff and an operating control group to manage the divisions of OXYCHEM and weld it into a coordinated national effort. Your company has been extremely fortunate in assembling an outstanding executive team headed by A. P. Gates, President and Chief Executive Officer of OXY-CHEM. Mr. Gates brings to our organization a lifelong background of experience in all phases of fertilizer production and marketing, both domestic and foreign. He started as a trainee salesman at Virginia Carolina Chemical Co. 17 years ago and, after its acquisition by Mobil Chemical Co., became Vice President and General Manager in charge of Mobil's chemical production and world-wide sales. Mr. Gates will have the help and counsel of H. S. Ten Evck, who has been elected OXY-CHEM'S Chairman of the Board in anticipation of his retirement. Our domestic marketing system is headed by OXY-CHEM's Executive Vice President for Sales, Dallas Cantwell, who formerly held a similar position for many years with Southern Nitrogen Company of Savannah, Georgia.

Occidental is particularly fortunate in that its domestic fertilizer distribution network blankets the most important agricultural areas of the United States, namely the Midwest, South, Southwest and Far West. In the famous midwestern corn belt, perhaps

the richest agricultural region in the world, your company is represented by the Green Belt, Ashkum and Summers divisions whose trademarks "Green Belt Granules," "Super PDQ," "Bumper Crop," "Garden Supreme," "Summers" and "Best on Earth" cover this marketing territory. Throughout the Southwest and Far West, the Best Fertilizers companies of California, Arizona and Texas market a complete line of fertilizers and agricultural chemicals under the "Best" label. Additionally, the OXY-CHEM group includes, in its Occidental of Florida division, our Suwannee River Phosphate Mine and Chemical Complex at White Springs, Florida; our Phosphate Shipping Terminal at Jacksonville, and our Research and Development Division at Lakeland, Florida, where the first commercial production of "wet process" superphosphoric acid using the Occidental-Nordac process was developed.

The Best Fertilizers Division of Occidental has principal manufacturing facilities in Houston and Plainview, Texas, and in Lathrop, California. Anhydrous ammonia production capacity was increased at Plainview and Lathrop last year and a new ammonium phosphate pellet plant for the production of high analysis complex micronutrient fertilizers was also completed at Lathrop.

Best's sales in 1966 were the highest in its history — over \$44 million. The following table shows increases in total tonnage sold over the past three years:

In California, Best's distribution of agricultural chemicals, consisting of insecticides, herbicides, nematocides, and fungicides, increased by 25%. This gives it the distinction of being one of the largest manufacturer-formulator-distributors in the western states.

Best of Texas continues to hold its No. 1 position as the largest supplier of fertilizers in the southwest. By using the new superphosphoric acid from Occidental's chemical complex in Florida, Best was able to develop a completely new line of pelleted fertilizers in which there is a more desirable controlled release of the combined phosphate, thereby increasing its efficiency. This made possible the incorporation or the chelation of micronutrients such as iron and zinc as polyphosphates. The company was licensed to use the term "ZIPP" as its trade-name for these new products. BEST-OXY ZIPP complexes were manufactured in formulations for principal crops such as rice, cotton, wheat, and improved pastures.

In the southwest area three new storage and formulation facilities were completed: in the center of the wheat country in Chickasha, Oklahoma; at Greenville, Texas, in the rich cotton and cattle country; and in Crowley, Louisiana, the heart of the rice belt. These plants have combined storage capacity for 45,000 tons of materials.

During the past two years the company has installed the most modern fume and dust control equipment at

0	1966	1965	1964
Gross Sales (Consolidated)	\$44,075,000	\$38,840,000	\$31,065,000
Tons of Fertilizer Sold	539,000	483,000	411,000

Note: In addition, the Best Division exported 88,000 tons in 1965 and 112,000 tons in 1966.



Multi-million dollar chemical complex in northern Florida with capacity to produce 500,000 tons of phosphatic fertilizer products per year went on stream in summer 1966. Company's Suwannee River phosphate rock mine in background.

its plants for the purpose of minimizing air pollution.

### The Green Belt Division

The Green Belt Division of Occidental Agricultural Chemicals Corporation manufactures and markets chemical fertilizers directly to the farmers of Indiana, Ohio and Michigan through 24 plants. In addition to both dry and liquid fertilizers, this division markets pesticides, herbicides, and seeds. Net sales of all products in this area approached the 10 million dollar mark in 1966.

This Division, along with Summers and Ashkum, also provides an important retail outlet for phosphate materials produced at Occidental's mine and chemical complex in Florida. Three fertilizer blending plants were built and became operational during the year in the Green Belt region. A full line of agronomic and distribution services are offered through the Division's strategically located plants and warehouse facilities.

### **Summers Division**

Summers Fertilizer is located in the rich Red River Valley serving North and South Dakota as well as Minnesota and Nebraska. It presently markets through 13 distribution points, three of which were added during 1966. Summers Fertilizer recorded a 24% sales increase in 1966. Sales of mixed liquids in the large farming area of the Red River Valley have increased faster percentagewise than dry fertilizers and, with this in mind, Summers plans to expand considerably in this area, capitalizing on the great demand for our superphosphoric acid.

#### **Ashkum Division**

Ashkum operates a 50,000 ton a year

plant in Illinois and distributes mixed fertilizer materials to 150 dealers in Illinois and Indiana. It has its own blending plant at Gibson City, Illinois located in the heart of the Corn Belt. Ashkum showed an increase in sales in 1966 of approximately 20%, while the tonnage increase was 23%.

### OCCIDENTAL OF FLORIDA

Occidental's Suwannee River phosphate operation located at White Springs, North Florida near the historical Suwannee River, has successfully completed the first full year of mining activity and the first four months of production from its multimillion dollar chemicals complex. Occidental of Florida's operating staff was assembled from other Occidental locations and from other plant food companies to form a skilled cadre to recruit and train inexperienced local residents. Maywood W. Chesson, who is head of the division, held a similar position for many years at American Cyanamid's operation in Florida. At year end this new industry had 575 employees whose annual earnings exceeded \$4,000,000, creating a great boost to Florida's economy.

In October, 1966, your company's reserves of phosphate rock were substantially increased through our agreement with Owens-Illinois, Inc. which covers approximately 40,000 acres of phosphate land adjacent to our Continental Can Company properties. Preliminary prospecting indicates economically recoverable reserves exceeding 77,000,000 tons with an average grade of 71% BPL from this property.

Prospecting of Continental Can Company lands, previously acquired by Occidental, continued during 1966 and indicated recoverable reserves now total more than 84,000,000 tons. Prospected

lands acquired from both Continental Can and Owens-Illinois are expected to exceed 161,000,000 tons with an average grade of 71.4% BPL. Core drilling will be continued in 1967.

An outstanding accomplishment of 1966 was the highly successful start-up of the Suwannee River Chemicals Complex. Initial operations commenced August 27 with all sections of the plant coming on stream by September 23. This amazing record was achieved from ground breaking in the summer of 1965 through the joint efforts of Dorr-Oliver Engineering Co. and Occidental's project management and operating staffs.

The world's largest submerged combustion superphosphoric acid plant, utilizing the patented Occidental-Nordac Process, went on stream in the fall and is approaching designed capacity of 150 tons per day of 72%-73% P<sub>2</sub>O<sub>5</sub> product. Demand for this newest fertilizer material continues to be higher than supply, demonstrating the merit of superphosphoric acid as a more economical source of phosphates in liquid fertilizer and replacing the unavailable electric furnace acid.

On March 29, 1966, the first shipload of Occidental phosphate rock left our newly-built Jacksonville phosphate terminal, bound for West Germany. By year-end regular monthly shipments of Occidental's phosphate products were being loaded on ocean going vessels from Occidental's terminal destined for ports in the United States, Canada, Europe and Asia.

On October 20, 1966, the first shipload of granular triple superphosphate from the Suwannee River Chemical Complex left our Jacksonville terminal for the Republic of Korea. Shipments of superphosphoric acid, merchant grade phosphoric acid, granular triple superphosphate and granular diammo-



New electric dragline with 50-ton bucket capacity in operation at company's Suwannee River phosphate rock mine in northern Florida, where two draglines are now working.

nium phosphate are now in full swing to customers in the U.S. and other countries.

Notable features of your Suwannee River phosphate operations are the facilities to prohibit air and water pollution. The latest technology and most modern equipment were utilized to protect the air purity of this agricultural area and to safeguard the native quality of the renowned Suwannee River.

The second electric dragline with a 50-ton bucket capacity was completed in August, 1966, and placed in operation as part of the schedule to increase the mine and beneficiation plant to a rate of 3 million tons annual production.

### Lakeland Research & Development Company

The Research & Development Group concentrated all of its efforts during the year 1966 on the production of superphosphoric acid and its derivatives. It turned the pilot plant in Lakeland, Florida into a commercial production unit and also developed continuous processes for the production of liquid base fertilizer. As the superphosphoric acid plant from the Suwannee River complex came on stream in late 1966, the R&D group was able to provide materials for market development work and later on in the year for actual sales into the consuming markets. Marketing of superphosphoric acid to producers of liquid fertilizer has gone extremely well and because of the demand for this material, it has been able to command a premium price in the market.

#### **OXYTROL DIVISION**

OXYTROL is Occidental's patented system for preserving perishable fruits, vegetables, meats and flowers through the use of a controlled inert nitrogen atmosphere within the shipping con-

tainer — trailer van, seagoing container or railroad car.

In October, 1966, OXYTROL became a division of Occidental under the direction of E. F. Wood, Division President. Mr. Wood has had twenty-six years' experience in the transportation and equipment business as an executive of Trailmobile, a division of Pullman, Inc., including production, development and sales. The division has moved into a new and modern facility at Burlingame, California, housing our expanded production department and a fully staffed research and engineering department to provide complete services to our customers.

Last vear several major transportation companies and shippers used the OXYTROL concept for their perishable shipments. Demonstrations in these fleets proved the value and opportunities OXYTROL presents to them. The ability to extend present marketing perimeters for a variety of products, maintaining quality without normal decline of shelf life, was evidenced to these users. Requirements for special applications of OXYTROL to be used in some of these fleets, including highway, piggyback rail, shipboard and other transportation combinations have been resolved. Production of OXYTROL systems for those applications is in process, with deliveries scheduled in the first half of 1967.

### INTERNATIONAL FERTILIZERS

The potential for the growth of fertilizer use in underdeveloped countries is greater on a percentage basis than that anticipated in the United States. Studies made by governmental agencies throughout the world, and by the United Nations, confirm to an alarming degree that world population increases are far outstripping the development

of new arable lands. Shortly after its entry into the fertilizer industry, your company concluded that the development of fertilizer production abroad should be a prime objective of the company, along with its domestic fertilizer production. Major areas of the Free World which have the capacity and raw materials for increased fertilizer manufacturing are located in North Africa and the Middle East, and it is in these areas that your company is placing a

major portion of its fertilizer development effort.

OXYCHEM is a world leader in fertilizer marketing through its overseas subsidiary INTERORE. Additionally, OXYCHEM participates through various wholly-owned subsidiaries, including Occidental International Corporation, in overseas ventures in Morocco, Tunisia, Saudi Arabia and several other countries in which projects are under consideration.



Liquid nitrogen is loaded into trailer preparatory to shipment of perishables under OXY-TROL patented food preservation process.

## International Ore & Fertilizer Corporation (INTERORE)

In 1966 INTERORE, through its world-wide organization, had sales of fertilizer materials amounting to approximately \$80 million. Phosphate rock and triple superphosphate from our own operations in Florida, Texas and California were sold at increasing volumes through INTERORE's 29 overseas offices.

INTERORE's total sales included over 2 million tons of fertilizers and phosphate rock in addition to potash, pesticides and chemical products.

With a continued increase in the world demand for fertilizers, INTERORE has expanded activities in barter and other types of multilateral transactions designed to assist developing countries overcome foreign exchange shortages.

Through the Agency for International Development, the United States Government made available approximately \$100 million during 1966 for fertilizers to support food production in developing nations. This was an increase over 1965, but is only a third of the \$300 million, which is expected to be allocated during the 1967 year. In terms of fertilizer, this represents an increase of about 250,000 more tons of nitrogen, 500,000 more tons of phosphate and 250,000 more tons of potash in the fiscal year 1967. In addition, it is expected that in 1968 this program will increase to about \$450 million, for another 50% increase over 1967. Fertilizer procurement programs financed privately or by other governments are also increasing and INTERORE is assured of substantial growth in the sales potential in this area.

## SAUDI ARABIAN AMMONIA-UREA PROJECT

Developments are proceeding very sat-

isfactorily under our agreement with Saudi Arabian Fertilizers Company (SAFCO), and in September, 1966, your President and Dr. Abdulhady Hassan Taher, Managing Director of SAFCO, announced the award of a contract of more than \$30 million for the construction of a fertilizer plant to be built near the Port of Dammam, Saudi Arabia by Chemical Construction Corporation of New York. This firm has worldwide prominence in ammonia and urea process plant technology, having built more than 1,600 projects in 45 countries, and, as prime contractor, will be responsible for design and construction of the plant. Your company will supervise all aspects of construction, management, operation and training of Saudi technical and labor personnel. Engineering has already begun and ground will be broken at the Dammam site later this year. Offsite facilities will include roads, railroads, water supply facilities, utilities and fire service. The plant is scheduled to come on stream in 1969.

The SAFCO plant is 51% owned by General Petroleum & Mineral Organization (PETROMIN), an agency of the Saudi Arabian government, and 49% owned by the Saudi Arabian public. The entire project is financed by SAFCO and guaranteed by the Saudi Arabian government.

From large quantities of natural gas now being flared, the plant will produce 600 tons per day of anhydrous ammonia. This will be converted into urea at a production rate of 1,020 metric tons per day, which will be marketed by INTERORE. Your company will receive 10% of the profits from the operation for its management services as well as 5% of the gross sales for its marketing effort. It is estimated that annual sales will be at least \$25 million.

At signing ceremonies in New York, Dr. Taher said: "This effort is a realiza-

tion of the desire of Saudi Arabia to advance technologically by building complete integrated industrial systems which take advantage of our tremendous petroleum and other mineral reserves."

### OCCIDENTAL INTERNATIONAL CORPORATION

Foreign mineral exploration and fertilizer projects made considerable progress in 1966 under the direction of Dr. Ginello Benini, Executive Vice President, and Richard C. Mayberry, Vice President of this division.

## Moroccan Phosphate Fertilizer Project

Our joint venture with the Kingdom of Morocco to produce superphosphoric acid and phosphoric acid derivatives from Moroccan phosphate rock is moving ahead on schedule. In July, 1966 Dorr Oliver Engineering Co. and Arthur D. Little & Co. commenced a final detailed engineering and marketing feasibility study. If this feasibility study affirms our preliminary findings, and, subject to suitable financing arrangements, construction should begin by late 1967 or early 1968. The plant will have an initial production rate of approximately 100,000 tons of superphosphoric acid and 200,000 tons of mixed fertilizers annually, using 700,-000 tons of phosphate rock. This capacity will be expanded as market demands require. The Government of Morocco will provide sufficient quantities of pyrrhotine on a long-term basis to the complex as a source of sulphur at competitive prices.

The complex in Morocco will enable your company to cover markets geographically convenient to its Saudi Arabian source of ammonia in addition to possible future Libyan ammonia.

### TUNISIAN-PHOSPHATE FERTILIZER PROJECT

In Tunisia, exploration and evaluation of your company's phosphate concession continued under the direction of our minerals group. During 1966, a preliminary mining feasibility study was completed, which initially proved a 40 million ton phosphate deposit in connection with the 200 million tons of phosphate mining rights provided for in our protocol agreement with the Tunisian government. The reserves evaluated thus far average in excess of 66% BPL, and it is expected that other reserves in the area will also average at least 66% BPL. This phosphate ore can be mined by the open pit method, which would be the first such production by that method from Tunisia and could, consequently, have the lowest mining cost of any Tunisian phosphate operation. Metallurgical and chemical testing is proceeding on schedule. Subiect to final results being satisfactory, your company and the Tunisian government intend to build and operate a phosphate chemical complex and superphosphoric plant. The Tunisian government will have 45% of the equity and will provide a proportionate share of the financing.

### TUNISIAN SALINE MINERALS AND POTASH PROJECT

Coring and testing continued on our saline minerals and potash project southwest of Gafsa, Tunisia, where Occidental holds prospecting permits covering approximately 3,000 square miles of territory. Several dry brine lakes are present on this concession with testing to date being concentrated on the dry lake, Chott Djerid. Drilling to date indicates a large recoverable potash deposit, consisting of several horizons of potentially commercial

mineable brines. We are currently drilling for solar ponding areas and will continue to define potash and associated saline mineral reserves with a deep hole drilling program. Power lines, railroads, and fresh water for plant processing are all located along the northern edge of the Chott Djerid. Because of the short shipping distance to deep water and the relatively low capital investment required, production of potash from Chott Djerid should be at

extremely low cost.

Your company has a 66%% interest in this venture with the Tunisian government holding a 331/3% interest and providing a proportionate share of the exploratory and development costs and of any financing that may be required later.

#### POTASH IN CANADA

In September of 1965 your company acquired from KCL World Potash a 50%



His Majesty King Faisal Ben Abdul Aziz of Saudi Arabia greets Occidental's president, Dr. Armand Hammer, right, as David Rockefeller, left, looks on. Occidental has signed joint agreement with Saudi Arabian government to build ammonia plant near Dammam.

interest in approximately 300,000 acres of potentially commercial potash lands in the Province of Saskatchewan, Canada.

Independent engineers engaged by your company have estimated that, on a preliminary basis, drilling to date has indicated a mineral reserve of 100 million tons of potash in the form of 30% muriate of potash. On the basis of preliminary tests, mining conditions

and metallurgical property of the ore appear to be favorable.

During 1966 negotiations were conducted with several interested groups in an effort to provide a major part of the financing required for a possible mine and mill. Due to the very unfavorable money market and somewhat unstable potash prices during the year, these talks have been temporarily suspended.



King Hassan II of Morocco, left, with Dr. Armand Hammer, company president, at royal palace in Rabat where conference was held to discuss Moroccan-Occidental phosphate fertilizer project.

### sulphur and petrochemicals

### JEFFERSON LAKE SULPHUR COMPANY

During 1966, Jefferson Lake Sulphur Company under the outstanding leadership of its President, Eugene H. Walet, Jr.: with its subsidiary, Jefferson Lake Petrochemicals of Canada Ltd. (PETRO-CHEM) headed by Harold F. Manley, recorded the highest earnings in its history. Consolidated sulphur and oil and gas sales reached \$11,857,000, a 21% increase over 1965. Consolidated net profits from operations were \$5,-164,000, an 86% increase over last year. Including a non-recurring profit from the assignment of a portion of Jefferson Lake Sulphur's rights in its newly-discovered Lake Hermitage, Louisiana sulphur deposit, the Sulphur Division's contribution to total Occidental gross earnings was \$10,956,000.

Jefferson Lake Sulphur alone had earnings from operations of \$3,638,000, representing gains of 101% over 1965 results. PETROCHEM alone recorded total earnings of \$2,622,000 (U.S.), reflecting a 35% increase over 1965 performance. Maintenance of efficient, economic operations, coupled with continued recovery in the average price received on domestic and export sulphur sales, were the principal factors behind this peak performance.

Our Sulphur Division continues to occupy a position of prominence in Occidental's mineral resource organization. Domestic production is mainly derived from its Long Point, Texas sulphur mine, producing by the Frasch (hot water injection) process, with other production coming from its 50% interest in the sulphur extraction plant

of Trans-Jeff Chemical Corporation at Tilden, Texas.

In Canada, the principal producing property of PETROCHEM consists of its interests in the extensive East Calgary gas field. PETROCHEM is the unit operator of the field, as well as of the modern gas-treating plant of Petrogas Processing Ltd., owned jointly by PETROCHEM (31%) and by other field producers. In addition to the sulphur for which Jefferson Lake Sulphur is the exclusive sales agent, the plant recovers pipeline gas and liquid petroleum products. PETROCHEM also owns and operates sulphur recovery plants at Peace River, British Columbia and at Coleman, Alberta and owns a small interest in the Wimbourne Field of Alberta.

During the past year, 150,000 long tons (LT) were exported from Long Point and 155,500 long tons were shipped to domestic customers from Long Point and Tilden. Domestic sulphur production for 1966 reached 327,700 LT, an increase of 14% over 1965 production.

Overall, Jefferson Lake Sulphur and PETROCHEM (including Petrogas) produced or held working interests in sulphur output from six plants (2 U.S. and 4 Canadian) of 634,273 LT. Sales from these plants reached 651,542 LT.

#### Sulphur Prices

During 1966, domestic sulphur prices in the U.S. and Canada continued their gradual recovery to levels only slightly higher than those of 10 years ago. At year-end, Jefferson's domestic prices were \$27.50/LT, f.o.b. plant in Texas, and \$30.00 (U.S.)/LT, f.o.b. plant in Canada. Export prices also experienced moderate increases and at year-end ranged from \$40-50/LT, f.o.b. vessel Gulf Coast port or Vancouver, British Columbia. These increases, plus advances announced in 1965 but pre-

dominately felt in 1966, resulted in average prices received by Jefferson of \$30.85/LT on shipments from its Texas plants and \$25.46 (U.S.)/LT on shipments from its Canadian plants.

### **Exploration and Development**

In response to the company's growing requirements and the continued world shortage of elemental sulphur, exploration and development activities for additional sulphur reserves and supplies were accelerated. A large number of salt dome, sour gas, and surface ore prospects were screened and reviewed. Several were selected for acquisition of leasehold or concession rights and for exploratory drilling or detailed feasibility study in the United States, Canada and overseas.

### New Sulphur Discovery at Lake Hermitage Dome, Louisiana

Jefferson Lake's initial exploratory efforts proved to be eminently successful with the discovery of an important new sulphur deposit on the Lake Hermitage Dome in Placquemines Parish, about 30 miles downriver from New Orleans. In mid-1966, sulphur rights covering 3.574 acres of the dome were obtained from Humble Oil & Refining Company and Gulf Oil Corporation and test drilling followed immediately. Exploratory drilling has indicated mineable sulphur reserves, which are expected to be at least three million long tons. By yearend, engineering and design of a Frasch plant capable of initial production of about 200,000 long tons of sulphur per year were well under way with construction estimated to be completed in the last quarter of 1967. Mining conditions are expected to be excellent since an unlimited supply of fresh water and adequate natural gas fuel are both readily available. After some production experience has been obtained, a doubling of the plant capacity is projected.

Royalties are payable to Humble and Gulf at the total rate of 19% on the first 800,000 tons of sulphur produced and 26% on all tonnage thereafter. During December, Jefferson Lake sold a 1/8th undivided working interest in the deposit to a European group for the sum of \$6 million.

### **Other Exploratory Activities**

In competitive bidding, Jefferson Lake was awarded the sulphur rights to approximately 2,560 acres of the Stewart Beach Dome, three miles offshore from Galveston, Texas. This is an area where core drilling by other companies several years ago indicated the presence of sulphur, but due to the oversupply at that time, was never followed up commercially. Your company's test drilling program was commenced in December and is expected to be completed in the Spring of 1967.

Additional potential sulphur-bearing mineral prospects in Texas, Louisiana, Canada, Mexico, the Middle East, and elsewhere are under current investigation. It is reasonable to anticipate that one or more of these prospects will be leased and drilled in 1967.

Leases of 282,399 acres of sour gas prospects in western Canada were acquired, increasing the net undeveloped acreage owned by PETROCHEM to over 664,292 acres. During the year, 14 exploratory wells were drilled, resulting in the discovery of two new fields or extensions of existing fields. It is expected that further drilling of development wells will substantiate the feasibility of building one or more gastreating and sulphur-recovery plants.

Also in Canada, the \$16 million (U.S.) construction program to double the size of the Calgary plant complex of Petrogas Processing is proceeding on schedule. Completion is due in April,



Storage vat receives fresh supply of molten sulphur at Jefferson Lake Petrochemicals plant which recovers elemental sulphur and LPG products, including butane and propane, from sour natural gas.

1967. When completed, the expansion will provide an additional 250,000 long tons per year of sulphur, together with increased volumes of pipeline gas and liquid petroleum products.

Another large-scale project under active consideration is the recovery of sulphur from sour gases associated with crude oil production in Saudi Arabia and currently being flared. Jefferson Lake, under an agreement with the Saudi Arabian government, plans to conduct a detailed feasibility study and, if justified, proceed with plant construction in partnership with Petromin, an agency of the Saudi Arabian government. Potential sulphur production from this project is estimated at 150,000-250,000 long tons per year. In addition to Saudi Arabia, studies and negotiations on other sizeable sour gas opportunities throughout the Middle East were initiated in 1966, and are under investigation at this time.

#### Outlook for 1967 and Beyond

The sulphur division's outlook for 1967 and beyond is particularly bright. For the fourth consecutive year, worldwide sulphur consumption exceeded production. In many cases, sulphur producers and consumers were compelled to reduce further their inventories to meet the demand.

Total Free World sulphur production in all forms in 1966 rose 7% to 24.1 million long tons (MM LT), but failed to keep pace with consumption which reached 25.1 million long tons. Much of this shortage was met by reducing stocks of elemental sulphur.

Jefferson Lake's management expects that Free World sulphur consumption in 1967 will continue to expand, exceeding 26.5 MM LT in all forms. Despite increased output of elemental

sulphur in western Canada from new plants and expansions, it is unlikely that world output, particularly of elemental sulphur, will be sufficient to meet the actual demand, much less the latent potential that has been deferred for lack of adequate supply. Therefore, inventories will again be reduced below the present low levels of less than four months' supply above ground. Such conditions will continue to exert pressure on producers to accelerate exploration and development programs to find sulphur reserves and bring them into production as rapidly as possible.

Certain new sulphur sources will be more costly to produce than conventional, established, and readily accessible reserves. To provide the needed economic stimulation to exploit these more expensive sulphur resources, some price adjustments will be required above the current levels.

During 1967, sulphur production of Jefferson Lake Sulphur companies and PETROCHEM is expected to increase from the current 600,000 LT per year level to a rate in excess of 1,000,000 LT per year with the expansion of Petrogas Processing's Calgary plant and the start-up of the Lake Hermitage plant. Moreover, as discussed above, several added projects should progress from the study and exploration stages to development and construction phases during the year.

A considerable portion of our domestic sulphur production will be utilized in the manufacture of phosphatic fertilizers at Occidental's Suwannee River Chemical Complex, which has already allowed Occidental to bring its new production to market at a time when other producers have curtailed plans for expansion due to the acute shortage of sulphur.

# mineral exploration

## OCCIDENTAL MINERALS CORPORATION

Occidental's interests in minerals exploration, on a worldwide scale both in the fields of fertilizer raw materials (phosphates and potash) and in metallurgical minerals were intensified during 1966, creating the need for a minerals exploration division. A group of outstanding mineral geologists and mining engineers was assembled by Richard C. Mayberry who was formerly with International Minerals Corporation. Drilling targets are located by utilizing the most up-to-date mineral exploration techniques in the disciplines of geochemistry, geophysics, aerial photography, mapping, computers, and petrography. The drilling programs are then conducted on a phase-by-phase basis which gives your company the most information for its exploration dollars.

#### Morocco

On February 16, 1967, an agreement was signed between the Government of Morocco (Bureau de Recherches et Participation des Mines) under which Occidental received exploration rights for copper on a 15,000 square mile area in the Anti-Atlas mountains of Southern Morocco. Our mineral geologists have completed initial geological work and have selected five target areas totaling about 330 square miles for further exploration and drilling. The areas are within a 300 mile radius of Agadir, a city on the Atlantic coast 325 miles south of Casablanca. Copper is known to exist in this region and ore is now being produced by the Government Mineral Agency. We anticipate the development of leachable copper reserves during 1967 and expect to delineate



Workmen shown constructing new gathering pipe system which will deliver sour gas to Jefferson Lake Petrochemicals sulphur plant in Calgary, Alberta, Canada.



"Little Bob" marine rig being towed by tug to Stewart Beach Dome site in Gulf of Mexico three miles offshore from Galveston, Texa to drill for sulphur on leases awarded to Jefferson Lake Sulphur Company.

other reserves of copper sulfide minerals with an active program that will be conducted in these areas.

#### **Domestic**

Occidental's domestic programs were concentrated primarily in Nevada and Arizona in a search, principally, for copper reserves. Geological work to date has been encouraging and from a number of initial prospects in these two states, we have selected the most promising ones in Arizona and Nevada for further exploration and evaluation.

#### Nevada

Occidental's mineral activities in Nevada have been concentrated in the Walker Lane Mineral Belt, which is one of the more highly mineralized zones known in the United States. U.S. Steel's Lyon iron deposit and Anaconda's Yerington copper deposit, along with former mining camps such as the Comstock Lode, Tonopah, and Goldfield are located on this same regional mineral trend.

#### Walker Indian Reservation

The minerals group has recently completed an evaluation of all the geological data developed through our various programs on the Walker Indian Reservation. Based on this, our geologists estimate that we now have an indicated reserve of approximately 300 million tons of iron ore at an average grade of 40% iron, which would make this one of the largest iron ore deposits in the western part of the United States. Tests made by the Colorado School of Mines show that this ore can readily be beneficiated to produce desirable 68% iron pellets. If the copper found in conjunction with this iron proves to be in commercial quantities, your company will be prepared to undertake the production and marketing of both products.

Surface geological work is proceeding in several other areas which indicate copper mineralization. The reservation is considered to have the potential for an entire mining district instead of just one deposit, because of a very favorable geologic environment located at the intersection of Walker Lane and the Nevada Iron Belt regional mineralized structures.

#### **Arizona**

Our Copper Creek prospect consisting of over 10 square miles of state leases is being evaluated at this time. A deep hole, based on a gravity and induced potential anomaly, will be drilled during 1967. Drilling in 1966 proved some ore reserves but we feel the major potential lies at depth below the shallow low-grade oxide copper zone.

Other work in Arizona is in progress and we plan to continue with an active program in this state.

### GARRETT RESEARCH & DEVELOPMENT COMPANY

During 1966 Garrett Research & Development Company was acquired by Occidental. Dr. Donald E. Garrett, the Presi-

dent, was head of research and engineering for American Potash Company over a period of many years. He assembled a group of some 19 top-flight chemists, chemical engineers and staff employees who acted for the past six years as a contract consulting research and development group for the chemical and related industries. Garrett Research & Development Company has been employed by many leading firms in this country and abroad, working on a wide range of projects but specializing in the investigation and process design of potash plants utilizing brines and complex ores. Another major activity during this period was in technical assistance in the design of solar water desalinization plants. During 1967 this contract work will be continued and at the same time a considerable amount of effort will be devoted to projects for Occidental. Your company has been utilizing Garrett Research for testing and evaluating a number of potash brine projects in the U.S. as well as assisting and supervising our saline minerals and potash brine project in Tunisia.



Garrett Research & Development Company, of LaVerne, California, acquired during 1966, is testing and evaluating potash brine, saline mineral and other Occidental projects.

### homebuilding

On August 3, 1966, Occidental acquired Deane Brothers, described by the Los Angeles Times on August 7, 1966 as "one of the most, if not the most, successful homebuilding firms in the country." Deane Brothers, Inc. is now a wholly-owned subsidiary of Occidental and all real estate activities, including the former S. V. Hunsaker & Sons, Inc. operation, are now consolidated under the Deane Brothers' management.

Deane Brothers is one of Southern California's few building firms which operated profitably during the extremely depressed nationwide building slump of 1966 when most real estate operations suffered severe losses. Management of the company is experienced in all phases of community development including land acquisition, community planning, architectural and landscaping design, advertising, marketing.

Prior to the acquisition, the Deane organization had built nearly 10,000 housing units of all types and the firm is currently developing four outstanding communities of new homes in Southern California. Sales at Diamond Point in Diamond Bar and at Deane Homes, Mission Viejo have been excellent, with more than \$13 million worth of homes sold at the two communities in the last 12 months.

New subdivisions of Deane Homes will be opened this year in several areas of Ventura, Los Angeles and Orange counties, and a new development of Deane Homes at Diamond Point is tentatively scheduled for a fall opening.

Deane Brothers, nationally known as the innovators of the exclusive Garden Kitchen, have, over the past two years, received awards from more than six national publications for its superiority of design. Among these are included American Builder magazine's First Grand Prize for a Quality Model Home and Better Homes and Gardens Approved Value Design Award.

Although Occidental's profits in the real estate division were considerably reduced in 1966, as compared with the previous year, economists' predictions of easing mortgage funds and an improving housing market should produce a profitable operation in 1967 for Occidental.

### HOLIDAY INNS-OCCIDENTAL JOINT VENTURE

During 1966 your company and Holiday Inns of America obtained a concession from the Kingdom of Morocco for the construction of four 300-room hotels. The Moroccan government is very interested in encouraging tourism, which has had a phenomenal rise in the past several years. The climate is very much like that of Southern California and, as a consequence, Morocco has become a very popular winter resort for Europeans.

These hotels, which will be located in Fez, Marrakech, Tangiers and Casablanca will have a total value in excess of \$20 million, largely financed by the Moroccan government.

Holiday Inns of America, one of the largest hotel chains in the world, will be the operator for the joint venture.



Buyers await turn to select Deane Homes in new Mission Viejo community near Santa Ana, California, where 363 homes were sold in 1966.



Beautiful Garden Kitchen, viewed from family room in this Sierra Hills model home, is exclusive feature in all Deane Brothers homes throughout Southern California.

# financial condition

The financial structure of your company was further strengthened in 1966 by a total of \$103 million in long-term financing at favorable rates, in spite of the general tight money market. This has enabled us to continue our growth and the development of our projects on a sound financial basis. The most important step was the successful sale, on a rights offering basis to shareholders, of \$61,168,300 in 5½% convertible subordinated deben-

tures due June 1, 1991. The debentures were originally convertible into capital stock of the company at \$45.50 per share. As the result of the 3% stock dividend declared in December of 1966, the conversion rate was reduced to \$43.89 per share.

The \$25 million long-term financing of our Florida Chemical Complex for which a commitment had been previously obtained, was completed in November, 1966, through the sale of 20-year 57% notes to The Equitable Life Assurance Society of the United States and six other institutions.

Arrangements have been completed

with a group of ten leading insurance companies headed by Aetna Life Insurance Company to refund, on a long term basis, the \$10 million of debt of The Permian Corporation which became payable upon its merger into Occidental. Similar arrangements have been made with Massachusetts Mutual Life Insurance Company and State Mutual Assurance Company of America with respect to \$7 million of the long-term debt of McWood Corporation.

Each of these credit agreements contains the same favorable terms as our \$60 million insurance company financing of August, 1965; namely no pay-

### FIVE YEAR STATISTICAL SUMMARY INCLUDES OPERATIONS OF CONSOLIDATED SUBSIDIARIES

	1966	1965	1964	1963	1962
Oil and Gas Sales, excluding sales		(Amounts in thousands of dollars)			
of gas production payments (see Notes to Financial Statements)	\$509,424	\$464,249	\$424,495	\$369,991	\$337,901
Fertilizer Product Sales	141,015	130,235	130,079(1)	39,611	34,631
Sulphur Sales	8,105	7,740	7,344	6,199	6,306
Other Operating Revenues	3,135	7,156	4,694	5,210	3,631
Gross Revenues	\$661,679	\$609,380	\$566,612	\$421,011	\$382,469
Net Income, excluding income from production payments (see Notes to Financial Statements).	\$ 22,730*	\$ 21,192*	\$ 15,639*	\$ 9,288	\$ 6,300
Income from Production Payments	_	-		5,050	6,442
Total Net Income	\$ 22,730	\$ 21,192	\$ 15,639	\$ 14,338	\$ 12,742
Per Share <sup>(2)</sup> Excluding Income from Production Payments.	\$ 2.05	\$ 1.94	\$ 1.59	\$ .96	\$ .68
Income from Production Payments	_	_	_	.53	.70
Total	\$ 2.05	\$ 1.94	\$ 1.59	\$ 1.49	\$ 1.38

<sup>(</sup>I) Increase in "Fertilizer Product Sales" in 1964 resulted from acquisition of International Ore and Fertilizer Corporation in December 1963.

(2) Based on average number of shares outstanding after giving retroactive effect to (a) four 4% stock dividends paid in January of each of the years 1963, 1964, 1965 and 1966; and (b) the issuance of capital stock in connection with poolings of interests.

<sup>\*</sup> Includes tax benefit of \$2,476,000 in 1964 and gain on sales of property, plant and equipment of \$2,599,000 in 1965 and \$5,685,000 in 1966, equivalent to \$.25, \$.24 and \$.51 per share, respectively.

ments, except interest, 'until August, 1970, and the recognition, with respect to future debt restrictions, of the appraised value of Occidental's principal natural resource reserves.

At the end of the year Occidental and its consolidated subsidiaries had cash in banks and marketable securities in the amount of \$38,870,000 and net working capital of \$67,363,000. This compares with \$34,315,000 cash as of December 31, 1965, and net working capital of \$51,479,000 at the same date.

### conclusion

In 1966 your company broke all its previous records of growth for the ninth successive year since its reorganization under present management. Our total assets increased from \$1.9 million in 1958 to \$445.3 million in 1966, and including the assets of our unconsolidated subsidiary, Deane Brothers, Inc., total company assets exceeded half a billion dollars. In this connection, it should be noted that mineral reserves of oil, natural gas, phosphate rock and sulphur are carried on our books at their capitalized cost of exploration which is considerably less than their appraised values as accepted by our lending institutions and as evaluated by independent and company engineers. If we were to add these increased values, your company's assets would be more than doubled and would exceed one billion dollars. Shareholders' equity during the past nine years has grown from \$1.2 million to \$131 million in book values and if we include the appraised values of our mineral reserves, shareholders' equity would reach approximately \$700 million dollars. It is these reserves of raw materials which have made Occidental a great natural resource company, a reassuring consideration in the inflationary spiral which characterizes our country's economy.

During the past nine years, gross annual revenues have increased from \$665,000 in 1958 to \$661.7 million in 1966, exclusive of Deane Brothers, Inc. Net profits over this same period have increased from \$92,000 in 1958, equivalent to \$.03 per share, to \$22,730,000 or \$2.05 per share for 1966. The number of our shareholders has increased by about 50% during the past year, reaching approximately 58,000 at year end. Many became Occidental shareholders as a result of the merger with the Permian and McWood corporations, and we are happy to welcome them into the growing Occidental family. Chiefly through the acquisition of Permian and McWood, our total employees have increased from 2,400 last year to approximately 3,900 at the present time.

We regret to inform you of the death, in June, 1966, of Frederic A. Gimbel. Mr. Gimbel had served as a director of Occidental since March, 1959, and was actively engaged in your company's affairs until the day of his death. His vacancy was filled by Ben C. Deane, President of Deane Brothers, Inc., and on November 1, Walter R. Davis, Executive Vice President for Operations of your company and President of The Permian Corporation, was elected to the board of directors. In March, 1967 Robert S. Rose, who had served your company as Vice President and General Counsel and as a director since 1962, resigned to enter the private practice of law. Mr. Rose will continue in an advisory capacity. John W. Alden, formerly with the San Francisco law firm of Pillsbury, Madison & Sutro, has joined the company as manager of our legal department. A. P. Gates, President of OXYCHEM, has been nominated for election as a director of your company at the forthcoming annual meeting of shareholders.

To our executive and operating staffs whose hard work and attention to duty resulted in another successful year, we express our sincere thanks. Your management is aware of its responsibility to provide the healthy employee relationships which have contributed so substantially to your company's accomplishments and, by incentive stock options and stock purchases through our employees' Thrift Plan, practically all our employees are Occidental shareholders.

We also acknowledge the excellent support of our shareholders which made Occidental's 1966 debenture rights offering such an outstanding success.

With the added profits to come from Permian and McWood; with the Suwannee River Phosphate Mine and Chemical Complex on full production; with the added income to be derived from our Oil and Gas Division through our increasing production from the Los Angeles Basin; with the development of our oil discovery in Libya; and with the assured increases in income from our Sulphur Division and other projects now in progress, your company looks forward to 1967 with confidence that new records for growth and increased earnings will be achieved.

By order of the Board of Directors

Munand Human

Armand Hammer President and Chairman of the Board

March 23, 1966

## OCCIDENTAL PETROLEUM CORPORATION AND SUBSIDIARIES CONSOLIDATED

## consolidated balance sheets

219228		
	1966 (Note 1)	1965 (Note 1)
	(Amounts in thousands)	
CURRENT ASSETS:	20.070	¢ 2/215
Cash including marketable securities, at cost which approximates market	38,870	\$ 34,315
Receivables —		
Trade, net of reserves of \$384,000 at December 31, 1966	81,216	73,341
and \$534,000 at December 31, 1965	5,000	4,522
Due from affiliated companies	1,491	699
Advances to joint ventures and amounts due from participants	1,852	1,810
Current portion of long-term notes	1,632	
Inventories, substantially at lower of cost (average or first in, first out) or market:	21,663	16,504
Products, principally finished goods	3,936	2,532
Materials and supplies		1,760
Prepaid expenses		135,483
Total current assets	130,209	
LONG-TERM NOTES RECEIVABLE	20,471	8,843
LONG-TERM MOTES RECEIVABLE		
INVESTMENTS IN AND ADVANCES TO UNCONSOLIDATED SUBSIDIARIES		
AND AFFILIATED COMPANIES (Note 1):		
Deane Brothers, Inc.	32,827	23,095
Other	6,532	7,614
	39,359	30,709
PROPERTY, PLANT AND EQUIPMENT (Note 4), at cost:	140.054	100 174
Oil and gas operations	142,264	109,174
Manufacturing, sulphur and other operations	113,380	58,455
	255,644	167,629
Less — Reserves for depreciation, depletion and amortization	41,926	39,692
	213,718	127,937
ATUED ACCETO		
OTHER ASSETS:	2.293	1,278
Deferred financing costs, less amortization (Note 2)	9,436	4,131
Preoperating expenses, project development costs, etc., less amortization (Note 2)	3,784	4,758
Other	15,513	10,167
	\$445,270	\$313,139

## december 31, 1966 and 1965

liabilities		
Hubilitioo	1966 (Note 1)	1965 (Note 1)
CURRENT LIABILITIES:	(Amounts i	n thousands)
Current maturities of long-term debt	. \$ 2,937	\$ 2.199
Other notes payable		100
Accounts payable	. 77,440	74,492
Cash dividends payable		1,707
Federal and state income taxes (Note 8)		1,069
Accrued liabilities		4,437
Total current liabilities	88,846	84,004
LONG-TERM DEBT, net of current maturities (Note 5):	150 100	100 005
Senior funded debt		103,395
Convertible subordinated dependires		102 205
DESCRIVE FOR FOTIMATED FUTURE PRODUCTION COSTS	213,588	103,395
RESERVE FOR ESTIMATED FUTURE PRODUCTION COSTS  APPLICABLE TO GAS PRODUCTION PAYMENTS (Note 3)	. 927	977
DEFERRED FEDERAL INCOME TAXES (Note 8)		. 700
DEFERRED PROCEEDS FROM SALE OF SULPHUR PRODUCTION PAYMENTS (Note 3)	737	1,239
COMMITMENTS AND CONTINGENT LIABILITIES (Notes 1 and 6)		
MINORITY INTERESTS IN:		
Capital stock	. 2,369	2,149
Retained earnings and capital surplus	6,897	5,725
	9,266	7,874
STOCKHOLDERS' EQUITY:		
Capital stock, par value \$.20 per share (Notes 1, 5, 7 and 10), authorized		
20,000,000 shares at December 31, 1966, issued		
11,182,274 shares at December 31, 1966 and		
10,738,501 shares at December 31, 1965 (including 52,382 shares at December 31,1966 held in the Treasury) after		
giving effect to shares issued in poolings of interests in 1966 and 1967	. 2.236	2.147
Warrants (Note 11)		17
Capital Surplus (Note 7)		74,411
Retained earnings (before reduction for stock dividends distributed		
in February 1967 and January 1966 — Note 7)	. 46,518	41,769
	131,032	118,344
Less treasury shares of a pooled company retired in 1966 pursuant to Delaware law		3,394
	131,032	114,950
	\$445,270	\$313,139

The accompanying notes are an integral part of these balance sheets.

# OCCIDENTAL PETROLEUM CORPORATION AND SUBSIDIARIES CONSOLIDATED

# consolidated statements of income for the years ended december 31, 1966 and 1965

for the Joure Chaoa accomment on	1966	1965
	(Note 1)	(Note 1)
	(Amounts in	thousands)
INCOME:	•	
Net sales of products	.\$658,544	\$606,340
Less: Cost of sales of products		556,725
	58,705 . 3,135	49,615 3,040
Miscellaneous	61,840	52,655
	01,040	
OPERATING COSTS AND EXPENSES:	26 704	32,673
Selling, general and administrative, and other operating expenses	. 36,704 . 6,661	4,274
Interest and debt expense, net	43,365	36,947
	40,000	
NET OPERATING INCOME OF COMPANY AND CONSOLIDATED	10.475	15 700
SUBSIDIARIES BEFORE MINORITY INTERESTS AND FEDERAL INCOME TAXES	18,4/5	15,708
EQUITY IN NET INCOME OF UNCONSOLIDATED SUBSIDIARIES (Note 1):		
Deane Brothers, Inc.	. 420	3,132
Other	. (798)	(10)
Income tax liabilities of unconsolidated subsidiaries eliminated by filing consolidated tax returns (Note 8)	590	3,093
by filling consolidated tax returns (Note 0)	212	6,215
TAYER MINIORITY INTERESTS		
NET INCOME BEFORE FEDERAL INCOME TAXES, MINORITY INTERESTS  AND SPECIAL CREDIT	. 18,687	21,923
PROVISIONS FOR FEDERAL INCOME TAXES OF CONSOLIDATED SUBSIDIARIES PRIOR TO DATES THEY BECAME SUBSIDIARIES (Note 8):		
Current	. 462	2,160
Deferred	192	369
	654	2,529
NET INCOME BEFORE MINORITY INTERESTS AND SPECIAL CREDIT	. 18,033	19.394
MINORITY INTERESTS IN INCOME OF SUBSIDIARIES	. 988	801
NET INCOME BEFORE SPECIAL CREDIT		18,593
SPECIAL CREDIT — Gain from sales of property, plant and equipment (Note 9)	5,685	2,599_
		£ 21 102
NET INCOME (Including Gain From Sales of Property, Plant and Equipment)	. \$ 22,/30	\$ 21,192
The accompanying notes are an integral part of these statements.		

## OCCIDENTAL PETROLEUM CORPORATION AND SUBSIDIARIES CONSOLIDATED

# consolidated statements of funds for the years ended december 31, 1966 and 1965

	1966 (Note 1)	1965 (Note 1)
SOURCES OF FUNDS:	(Amounts in	thousands)
Net income (including gain on sales of property, plant and equipment)	\$ 22,730	\$ 21,192
Equity in net income of unconsolidated subsidiaries	(212) 988	(6,215) 801
Depreciation, depletion and amortization and other noncash deductions, net		6,923
	35,113	22,701
Proceeds from:		
Sales of capital stock	3,248	22,679
Sales of properties (excluding long-term receivables)	2,625	6,958
Senior funded debt	51,612 61,168	37,638 —
	153,766	89,976
DISPOSITION OF FUNDS:		
Additions to property, plant and equipment	89,077	38,516
Payment of cash dividends	7,540	5,312
Redemption of capital stock of subsidiaries and purchase of treasury stock	2,835	3,200
Payments on long-term borrowings	12,698	910
Investments, advances, etc	7,690	11,910
Additions to other assets, etc.	18,042	7,281
	137,882	67,129
INCREASE IN WORKING CAPITAL	\$ 15,884	\$ 22,847

## OCCIDENTAL PETROLEUM CORPORATION AND SUBSIDIARIES CONSOLIDATED

# consolidated statement of stockholders' equity for the year ended december 31, 1966

	_ Capital Stock_			Camital	Retained
	Shares	Amount	Warrants (Amounts in	Capital Surplus n thousands)	Earnings
BALANCES, DECEMBER 31, 1965 (restated for poolings of interests)	10,738,501	\$2,147	\$17	\$74,411	\$41,769
Net income (including gain on sales of property, plant and equipment)	_	_		_ 2.162	22,730
Exercise of employee stock options and stock warrants Issuance of capital stock upon conversion of debentures	121,419	24	(5)	3,162	_
and preferred stock of pooled company  Issuance of treasury stock in acquisition of properties	10	_	_	157	<del>-</del>
and companies Dividends paid by Occidental Petroleum Corporation:	_	_		416	
Cash	322,344	<del>-</del> 65	_	8,740	(6,579) (8,832)
Dividends paid in cash by pooled companies prior to pooling on:					(879)
Common stock		_	_	_	(16)
Preferred stock	_	-	_	_	(1,675)
Corporation over par value of capital stock of pooled company  Excess of cost over par value of treasury shares	_	_	-	(216)	_
retired by a pooled company pursuant to Delaware law	_			(4,404)	
BALANCES, DECEMBER 31, 1966 (Note 7)	11,182,274	\$2,236	\$12	\$82,266	\$46,518

## OCCIDENTAL PETROLEUM CORPORATION AND SUBSIDIARIES CONSOLIDATED

# consolidated statement of stockholders' equity for the year ended december 31, 1965

Capital Stock					
	Shares	Amount	Warrants	Capital Surplus	Retained Earnings
Sale of the sale of the sale of the sale of			(Amounts	in thousands	) —
BALANCES, DECEMBER 31, 1964, previously reported ADD — Poolings of interest in 1966 and 1967 with	6,718,043	\$1,344	\$21	\$35,124	\$18,913
several companies (Note 1)	2,627,771	525	- Communication	9,901	15,655
BALANCES, DECEMBER 31, 1964, as adjusted ADD OR (DEDUCT):	9,345,814	1,869	21	45,025	34,568
Net income (including gain on sales of property,					
plant and equipment)		Green		-	21,192
Sale of stock by rights offering Exercise of employee stock options	1,110,022	222	-	21,042	_
and stock warrants	27,000	5	(4)	560	0,0000
Issuance of capital stock upon conversion of debentures					
and preferred stock of pooled company	5,576	1	pulmed	91	_
Issuance of treasury stock in acquisition of properties					
and other companies		-	<del>-</del>	439	essinated
Dividends paid by Occidental Petroleum Corporation:					
Cash . A	_			6704	(3,765)
Capital stock (Note 7)	250,089	50	Spinistration (Control of Control	6,724	(6,949)
Dividends paid in cash by pooled companies prior					
to pooling on:  Common stock	*****	1.	_	_	(1,156)
Preferred stock	_			Mission	(16)
Cost of capital stock reacquired			Management	· _	(2,105)
Excess of capital stock of pooled companies over par					
value of capital stock issued	-	40		561	more
Excess of subsidiary's net assets of a pooled company					
over cost at date of acquisition	-		crossed	5	name.
Cost of stock issue by a subsidiary	\$100max	-	****	(4)	-
Excess of capital stock issued by Occidental Petroleum					
Corporation over par value of capital stock				(32)	_
of pooled company	10 729 501	\$2,147	\$17	\$74,411	\$41,769
BALANCES, DECEMBER 31, 1965 (Note 7)	10,738,501	\$2,147	<u>Φ1/</u>	Ψ/ <del>1,1</del> 11	41,703

The accompanying notes are an integral part of this statement.

## OCCIDENTAL PETROLEUM CORPORATION AND SUBSIDIARIES CONSOLIDATED

## notes to consolidated financial statements december 31, 1966

#### (1) PRINCIPLES OF CONSOLIDATION

In 1966 and 1967, Occidental exchanged a total of 2,646,262 shares of capital stock for the assets and liabilities or the outstanding capital stock of companies engaged in fertilizer operations, the marketing of crude oil and refined products, research and development and real estate. All real estate operations were transferred to Deane Brothers, Inc., an unconsolidated subsidiary. These transactions were accounted for as poolings of interest, except for certain small companies which were accounted for as purchases.

The consolidated financial statements include the accounts of Occidental Petroleum Corporation and its significant subsidiaries, other than Deane Brothers, Inc. and Cambrian Oil Co. All material intercompany accounts and transactions have been eliminated (there were no significant intercompany profits or losses on transactions with affiliates not consolidated). The consolidated financial statements as of December 31, 1965 and 1966 give effect to the poolings of interests in 1966 and 1967 described in the preceding paragraph.

The individual accounts of International Ore & Fertilizer Corporation (Interore), a Delaware corporation, were not previously consolidated since its operations (primarily as a trading concern engaged in the purchase and sale of fertilizers and fertilizer raw materials) were considerably different from those of Occidental and consolidated subsidiaries. However, in 1966 Interore's operations became more closely integrated with those of Occidental and subsidiaries consolidated and, therefore, its accounts have now been retroactively consolidated with Occidental.

The individual accounts of Deane and its subsidiaries have not been consolidated since its operations as a real estate developer and sales concern are not comparable with those of Occidental and subsidiaries consolidated. Condensed summaries (in thousands of dollars) of the financial condition of Deane and subsidiaries at December 31, 1966, and the results of their operations for the two years then ended are shown below:

Notes and contracts receivable from real estate sales\$3	31,318
Residential real estate held for sale or investment	10,905
Rental properties, including land	4,122
Other assets	9,276
Total assets\$	35,621
Trust deed notes relating to — Real estate held for sale or	7 500
investment\$1	1,528
Houses and real estate sold under conditional sales contracts	7,573
Rental properties	3,411
Other secured liabilities	303
Unsecured notes payable to bank	16,260
Other liabilities	6,139
Deferred Federal income taxes	1,580
Due to parent company	22,230

		10 507
Capital stock and surplus		. 10,597
Total liabilities and ed	quity	. \$85,621
	1966	1965
Income:		
Sales of residential	\$23,348	\$22,250
real estate	\$23,340	\$22,200
Sales of unimproved land and land contracts		
receivable —		
Sales by Family Realty Corp., William Develop-		
ment Corp., and		
Monarch Investment		
Company subsequent to poolings of interests with		
these companies	4,242	5,941
Other	. 3,779	15,212
Sales of apartments	. 298	1,759
Other	. 2,958	3,978
	\$34,625	\$49,140
Costs and operating expenses:		
Cost of residential real estate sales	.\$22,425	\$20.848
Cost of unimproved land		,
sales and land contracts		
receivable — Cost of sales by Family		
Realty Corp., William		
Development Corp., and		
Monarch Investment Company subsequent to		
poolings of interests		
with these companies .		3,043
Other	. 2,855	10,166 1,521
Cost of apartment sales	. 209	1,321
Interest, selling, administra- tive, taxes on income		
and other	. 6,864	10,430
	\$34,205	\$46,008
Net income	.\$ 420	\$ 3,132

Deane Brothers, Inc. and Subsidiaries' commitments and contingent liabilities as of December 31, 1966 are as follows:

- (a) As a participant in a number of joint ventures Deane is contingently liable on a joint and several basis for the liabilities of such joint ventures which approximate \$9,800,000.
- (b) Deane is contingently liable in connection with obligations to lending institutions which are secured by first deeds of trust on residential units in cases where Deane sold such units but no express substitution of debtors was made. Although the total amount of the obligations was approximately \$28,000,000 at December 31, 1966, the contingent liability is only as to the excess of the indebtedness over the value of the security. It is the opinion of management that Deane will incur no loss in view of the fact that the value of the security is substantially in excess of the indebtedness and the procedures for obtaining deficiency judgments against the

debtor is cumbersome and not utilized in the trade. At December 31, 1966, \$6,000,000 of these contingent liabilities were guaranteed by Occidental Petroleum Corporation.

The individual accounts of Cambrian Oil Co. (which are maintained on a cash basis but do not differ materially from the accrual basis of accounting) have not been consolidated since its operations, which consist of the financing of production payments, are not comparable with those of Occidental and consolidated subsidiaries. Condensed summaries (in thousands of dollars) of the financial condition of Cambrian at December 31, 1966 and the results of its operations for the period January 22 to December 31, 1965 and the year ended December 31. 1966 are shown below:

ended December 31, 1966 are sr	nown beid	ow:	
Current assets Production payments, net of			88
allowance for depletion		185,2	45
Total assets		\$186,0	33
Long-term debt		\$184,7	798
Deferred Federal income tax			37
Stockholder's equity		1,1	198
Total liabilities and ed	quity	\$186,0	)33
	1966	196	55_
Income:			
Production payment proceeds	\$52,651	\$19,	700
Interest			11
	52,661	19,7	11
Costs and expenses:			
Depletion	41,571	14,	
Interest		5,	009
Other	9		1
	52,615	19,	580
Net income before deferred Federal income taxes			31
Provision for deferred Federa income taxes	22		15
Net income			16
	and I have		200

Subsequent to year end, Occidental has arranged to sell its investment in Cambrian at book value. At December 31, 1966, investments in unconsolidated majority owned subsidiaries are stated at amounts equivalent to the equity in net assets of those companies except that Interore's investments in and advances to foreign subsidiaries and affiliates are stated at the lower of cost or underlying book value.

#### (2) OTHER ASSETS

Deferred financing costs are being amortized on the basis of the terms of the related financial agreements.

Preoperating expenses and project development costs are deferred until the related facilities or projects are brought into commercial operation. These costs are then amortized over the expected use life of these facilities or projects.

#### (3) PRODUCTION PAYMENTS

(a) Gas

In 1961, 1962 and 1963, Occidental included the proceeds from sales of carved-out production pay-

#### **NOTES** (Continued)

ments (net of provisions for applicable future lifting costs, depreciation, depletion and amortization) in its statement of income as a special credit in the year of sale. Gas sold in place under these arrangements to be produced in future periods is being excluded from income when produced. The unliquidated balances of these production payments at December 31, 1966 and 1965 are set out in the following table:

	1966	1965
	(Amounts in t	housands)
Year payment sold -		
1962	\$ 7,733	\$ 7,750
1963	7,250	7,250
Cumulativé Unliquidated	£14.002÷	#1F 000#
Balance	\$14,983^	\$15,000*

<sup>\*</sup>Not including interest added to principal.

Current interest has been paid on the payments sold in 1962 and 1963. Principal payments commenced in 1966 on the remainder of the payments sold in 1962, and a portion of the payments sold in 1963. In certain instances, interest was added to principal, and the amount of the payments sold have not been reduced since the 1966 payments have not repaid the amount of the interest added.

Under an alternative generally accepted method of accounting (now more commonly used and adopted by Occidental for production payments sold in 1964) for sales of carved-out production payments, proceeds from such sales are accounted for as deferred income to be included in sales as the oil or gas (or other mineral) required to liquidate such payments is produced. If, in connection with the cash received from the carved-out production payments, Occidental had followed this alternative method, retained earnings at December 31, 1964 would have been reduced by \$11,246,000 and income increased by \$7,000 and \$149,000 for the years ended December 31, 1965 and 1966, respectively.

#### (b) Sulphur Production Payment

During 1964, one of the company's subsidiaries sold a carved-out sulphur production payment in the amount of \$2,000,000. Such amount, after deducting \$1,263,000 representing sulphur produced to December 31, 1966, has been deferred and is separately shown on the balance sheet as deferred income.

#### (4) PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is comprised of the following at December 31, 1966:

	Reserves for	
	Depreciation, Depletion	Net
	and	Book
Cost	Amortization	Value
(Ar	mounts in thous	ands )

Oil and gas operations —

exploration costs\$	73,184	\$ 3,779	\$ 69,405
Lease and well equipment	12,732	1.505	11.227
Pipelines and equipment	27,496	9,832	17,664

Refineries, terminals and			
gas plants	7,980	1,505	6,475
Rolling stock .	9,042	3,828	5,214
Other	11,830	3,337	8,493
	142,264	23,786	118,478
Manufacturing, sulphur and other operations — Land, leaseholds, office and			
warehouse	14,494	1,590	12,904
Plant and equipment	83,001	16,280	66,721
Property values acquired under lease	10,110	270	9,840
Construction	,		-,-,-
in progress	5,775		5,775
	113,380	18,140	95,240
\$	255,644	\$41,926	\$213,718
-			

All costs of exploration for, and development of, oil and gas reserves are capitalized and are being amortized on a company-wide composite unit of production method over the estimated productive life of oil and gas reserves in North America.

Oil and gas reserves at December 31, 1966, based on estimates prepared by independent or company engineers approximate 196,050,000 barrels (gas reserves, stated in equivalent barrels of oil). The net book value of oil and gas property, plant and equipment, plus further estimated development costs is \$88,535,000, equivalent to 45¢ per barrel.

#### (5) LONG-TERM DEBT

Following is a summary of long-term debt net of current maturities, at December 31, 1966 and 1965:

	Interest Rate	1	966	1965
Senior funded debt: Occidental Petroleum Corporation and subsidiaries (guaranteed by Occidental): Notes payable principally to insurance companies payable in installments from 1970 to			(Amou thous	
Notes payable to banks, payable in installments from 1968 to 1977	5½% 5½%	\$ 60	,000	\$ 60,000
to	61/2%	40	,212	14,707

Notes payable to insurance companies in installments from 1969 to 1986 secured by mortgages on the Florida			
Chemical Complex Installment purchase obligations, secured by mortgages on phosphate	5%%	25,000	,
deposits First Mortgage Revenue		7,769	<b>8,0</b> 89
Bonds	41/2%	10,110	_
OtherV Various notes payable by consolidated subsidiaries (n guaranteed by Occidental): Notes		163	139
payable to insurance company	5½%	_	10,000
Promissory notes	6¼%	6,270	6,808
Note payable to			
bank	51/2%	1,875	2,750
OtherV	arious	1,021	902
		152,420	103,395
onvertible subordinated debentures			
due 1991	5¼%	\$213,588	\$103,395
artain of the above			6

Certain of the above notes represent borrowings under agreements which contain covenants relating to maintenance of financial ratios, borrowings, declaration of cash dividends, etc. At December 31, 1966, retained earnings of \$26,872,000 were restricted as to payment of dividends.

At year end 1,344,348 shares of Occidental stock were reserved for issuance under the convertible subordinated debenture agreement.

During 1966, Occidental negotiated a credit agreement totaling \$25,000,000 with a group of banks to be borrowed as needed for general corporate purposes in 1967 and later periods. The notes will bear interest at ½ of 1% above prime lending rates prevailing at the time of the takedown and are payable in three equal installments beginning in 1968. On March 3, 1967, Occidental borrowed \$10,000,000 under this agreement.

### (6) COMMITMENTS AND CONTINGENT LIABILITIES

Occidental has guaranteed payment of \$5,800,000 of bank loans of Chatham Realty Corporation, a non related company. The loans, bearing interest at 54%, are evidenced by a note

#### NOTES (Continued)

payable due in two installments at December 31, 1967 and 1968. Chatham obtained the loans to finance its purchase of notes secured by second trust deeds and conditional sales contracts from S. V. Hunsaker & Sons, Inc., which in August 1966, became a subsidiary of Deane Brothers, Inc.

Under terms of the 1964 Agreement and Plan of Reorganization between Occidental and S. V. Hunsaker & Sons, Occidental guaranteed substantially all of the obligations of Hunsaker (now a subsidiary of Deane Brothers, Inc.) at that date. Such guaranteed liabilities, including liabilities of Deane subsequently guaranteed, totaled \$18,760,000 at December 31, 1966, plus contingent liabilities as reflected in Note 1. Also, Occidental has agreed to subordinate its advances to Deane to the extent of \$7,000,000 to bank loans of a joint venture, in which Deane is a participant, which amount to \$686,099 at December 31, 1966.

International Ore & Fertilizer Corporation (Interore), a consolidated subsidiary, was contingently liable for unused letters of credit and borrowings by its foreign subsidiaries in the approximate amount of \$5,671,000 at December 31, 1966.

In 1964, Armour & Company instituted an action naming as defendants, Occidental Research and Engineering Corporation, International Ore & Fertilizer Corporation, and Occidental Petroleum Corporation alleging that the defendants acquired certain trade secrets and confidential information in the field of superphosphoric acid from former employees of Armour, now employed by defendants, and are using such trade secrets for their own benefit. Armour also initiated similar actions against the former Armour employees alleging that they had wrongfully disclosed such trade secrets. The defendants have filed answers denying all material allegations of Armour's complaints. In the opinion of special counsel, Occidental, its subsidiaries and the individual employees who are parties to the action have a meritorious defense and should prevail. During 1966 Occidental Agricultural Chemicals Corporation (Oxychem) entered into a royalty agreement for a period of forty years which requires Oxychem to mine economically recoverable phosphate rock on property adjacent to its Florida chemical complex. Under this agreement minimum annual royalties must be paid beginning in 1967. The royalty agreement has been unconditionally guaranteed by Occidental.

In 1965, Occidental and Interore entered into an agreement with The General Petroleum and Mineral Organization (Petromin) to design, engineer and supervise the construction and operation of a plant in Saudi Arabia to produce urea. Construction costs and plant operating costs are to be paid by Petromin. Occidental and Interore shall bear expenses of carrying out their obligations under the agreement. Interore is obligated to buy the output of the plant at prevailing world market prices, less a discount for its services. Occidental has guaranteed Interore's performance under this agreement and will receive a percentage of plant profits for its services. The agreement extends for a period of twenty years from commencement of construction.

#### (7) RETAINED EARNINGS AND DIVIDENDS

As set forth in Note 5, loan agreements between Occidental and various lending agencies provide a restriction on retained earnings available for

payment of dividends other than stock dividends. Stock dividends of four and three per cent, declared in December 1965 and 1966, respectively, were not recorded in the financial statements until issuance of the related capital stock in January 1966 and February 1967. At those times, amounts equal to the fair value of the shares issued were transferred from retained earnings to capital stock and capital surplus as follows:

	Number of Shares	Fair Value
Declared in 1965, issued in 1966	. 322,344	\$ 8,832,226
Declared in 1966, issued in 1967	. 311,919	\$12,476,760

#### (8) FEDERAL INCOMES TAXES

As a result of the deduction for tax purposes of certain items capitalized for financial statement purposes, and as a result of utilizing operating loss carryforwards created thereby, no Federal or Canadian income taxes have been paid by Occidental nor by its Canadian subsidiary during the two years ended December 31, 1966.

Occidental follows the practice of filing consolidated tax returns including its wholly owned domestic subsidiaries and no taxes have been payable on such consolidated returns. Federal income taxes applicable to income of consolidated subsidiaries accounted for on a pooling of interests basis for periods prior to the dates they became subsidiaries have been shown in the consolidated statements of income and the related liabilities included in the consolidated balance sheets.

#### (9) SPECIAL CREDIT

During 1966 Occidental sold an undivided 12½% interest in sulphur and sulphur rights discovered on a lease acquired in 1966. The resulting net gain of \$5,792,250 on this sale has been reflected as a special credit in the accompanying consolidated statements of income along with losses on dispositions of property, plant and equipment of a pooled company.

#### (10) STOCK OPTIONS

Options to purchase capital stock of Occidental have been granted to officers and employees under Stock Option Plans adopted in 1961 and 1966.

On May 3, 1966, the shareholders of Occidental approved the 1966 Stock Option Plan for Key Employees of Occidental Petroleum Corporation and Its Subsidiaries and, after this date, all employees' stock options granted by Occidental after this date were granted pursuant to the 1966 Plan. The 1966 Plan provides for the granting to officers and key employees of Occidental and its subsidiaries of options to purchase an aggregate of 450,000 shares of capital stock at prices not less than 100 percent of the market price on the date of grant. The number of shares for which options may be granted in any one year under the 1966 Plan was originally 150,000, plus the number not issued in prior years and adjustments in accordance with the antidilution provisions of the Plan. In March 1967, this provision was increased to 250,000 shares in any one year.

Options granted under the 1961 Plan contain similar terms and conditions as those granted under the 1966 Plan, except that 1966 Plan options become exercisable in cumulative annual installments of one-third of the total option shares.

In connection with the acquisitions of The Permian Corporation and McWood Corporation, ostation options to purchase 32,300 shares of Permian common stock and 17,500 shares of McWood common stock previously granted to certain key employees by those companies were assumed by Occidental at the rate of .75 and .412 of a share of Occidental for each share of Permian and McWood, respectively, without any change in the aggregate exercise prices or the terms of the options.

Following is a summary of transactions during the year ended December 31, 1966, including option obligations assumed in connection with the Permian merger and the McWood acquisition and the exercises and terminations of options assumed by Occidental in prior years, adjusted to give effect to the stock dividends described in Note 7 in accordance with the antidilution provisions of the options:

	Shares	Option Price
Options outstanding, December 31, 1965 (including 291,045 shares exercisable but not exercised)	501,158	\$13.48 — \$29.76
Add or (deduct) 1966 transactions — Granted	129,357	\$31.80 \$50.49
Assumed — The Permian Corporation McWood Cor-	24,952	\$14.60 — \$22.01
poration	7,210	\$14.70 - \$41.26
Exercised	(120,812)	\$13.48 \$28.61
Terminated	(28,167)	\$17.95 — \$46.87
Options outstanding, December 31, 1966 (including 389,265 shares exercisable but not exercised)		\$13.48 — \$50.49
Shares reserved at December 31, 1966	897,315	

No amounts have been reflected in the income accounts of Occidental or its subsidiaries consolidated with respect to stock options. Proceeds from the sale of stock are credited to capital stock (at par value) and the amounts in excess thereof are credited to capital surplus.

#### (11) WARRANTS

Jefferson Lake Petrochemicals of Canada, Ltd., has issued nonredeemable warrants entitling the holders to purchase common shares of Petrochemicals at prices from \$9.00 to \$13.00 per share (Canadian) to June 1, 1971. At December 31, 1966, there were outstanding warrants to purchase 362,632 common shares.

#### (12) RETIREMENT INCOME PLAN

Occidental has a noncontributory pension plan covering its employees and those of certain subsidiary companies. Based on actuarial studies, pension costs totaling \$1,047,000 have been charged against operations in 1966. This is expected to represent the normal per annum cost. Past service costs are being amortized over a twenty year period. At year end, liability for unfunded past service costs approximated \$486,000.

#### ARTHUR ANDERSEN & Co.

1320 WEST THIRD STREET LOS ANGELES, CALIF. 90017

To the Stockholders and Board of Directors, Occidental Petroleum Corporation:

We have examined the consolidated balance sheets of OCCIDENTAL PETROLEUM CORPORATION (a California corporation) and subsidiaries consolidated as of December 31, 1966 and 1965, and the related consolidated statements of income, stockholders' equity, and funds for the years then ended. We have also examined the condensed financial statements of two significant unconsolidated subsidiaries, which are set forth in Note 1 of the accompanying notes to consolidated financial statements, as of December 31, 1966, and for the two years then ended with respect to Deane Brothers, Inc. and for the year then ended with respect to Cambrian Oil Co. Our examinations were made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We did not examine the financial statements of Cambrian Oil Co., an unconsolidated subsidiary (Note 1) for the year ended December 31, 1965. We also did not examine the financial statements of The Permian Corporation for the year ended December 31, 1965, and Jefferson Lake Petrochemicals of Canada, Ltd. and McWood Corporation for the years ended December 31, 1966 and 1965, which are included in the consolidated financial statements and which represent an aggregate of approximately 14 and 38 percent of total consolidated assets at December 31, 1966 and 1965, but have received reports thereon by other public accountants who have made such examinations.

In our opinion, based upon our examination and aforementioned reports of other public accountants, the accompanying financial statements present fairly the consolidated financial position of Occidental Petroleum Corporation and subsidiaries consolidated at December 31, 1966 and 1965, and the results of their operations and the sources and disposition of funds for the years then ended in conformity with generally accepted accounting principles applied on a consistent basis after giving retroactive effect to the change in consolidating a previously significant unconsolidated subsidiary as explained in Note 1 to the consolidated financial statements (in which we concur). It is also our opinion that the condensed financial statements of two significant unconsolidated subsidiaries, which are set forth in Note 1 of the accompanying notes to consolidated financial statements, fairly summarize their financial position at December 31, 1966, and the results of their operations for the two years then ended with respect to Deane Brothers, Inc. and for the year then ended with respect to Cambrian Oil Go. in conformity with generally accepted accounting principles applied on a consistent basis.

arthur Andersen & co.

Los Angeles, California, March 10, 1967.

**OFFICERS** 

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Occidental Petroleum Corporation's Board of Directors, seated left to right, Neil H. Jacoby, Charles K. Schwartz, Hugh S. Ten Eyck, Arthur Groman, Dr. Louis A. Rezzonico, Eugene C. Reid, Dr. Armand Hammer, Walter R. Davis, Ben C. Deane, Robert S. Rose (Resigned, March, 1967), Eugene H. Walet, Jr., Paul C. Hebner. Director not shown: Eberhard P. Deutsch

#### PRINCIPAL SUBSIDIARIES AND DIVISIONS

### OIL AND GAS PRODUCTION AND EXPLORATION DIVISION

Division Headquarters
5000 Stockdale Highway, Bakersfield,
California

Regional Offices

Denver, Colorado; Houston, Texas;
Lafayette, Louisiana

Occidental of Libya, Inc. (OXYLIBYA) P.O. Box 2134, Tripoli, Libya

#### THE PERMIAN CORPORATION

Crude Oil Marketing Division 1509 West Wall Street, Midland, Texas 4671 Southwest Freeway, Houston, Texas

J. B. Knight Company (Agricultural Irrigation Systems)1506 Lubbock Road, Brownfield, Texas

JEFFERSON LAKE SULPHUR COMPANY 1408 Whitney Building, New Orleans, Louisiana

### JEFFERSON LAKE PETROCHEMICALS OF CANADA LTD.

1000 Calgary House, Calgary, Alberta, Canada

### OCCIDENTAL AGRICULTURAL CHEMICALS CORPORATION (OXYCHEM)

1301 Avenue of the Americas, New York, New York

4671 Southwest Freeway, Houston, Texas

Occidental of Florida (Division) P.O. Box 300, White Springs, Florida

The Best Fertilizers Co. (Division)
P.O. Box 198, Lathrop, California

The Best Fertilizers Company of Texas (Division) 8420 Manchester Road, Houston, Texas

The Best Fertilizers of Arizona, Inc. 447 West First Street, Casa Grande, Arizona

The Green Belt Division
One West Main Street, Springfield, Ohio

International Ore & Fertilizer Corporation (INTERORE)

1301 Avenue of the Americas, New York, New York

#### Regional Offices

London, Paris, Dusseldorf, Madrid, Milan, Athens, Istanbul, Johannesburg, New Delhi, Calcutta, Karachi, Sydney, Singapore, Hong Kong, Tokyo, Seoul, Taipei, Manila, Honolulu, Rio de Janeiro, Sao Paulo, Buenos Aires, Montevideo, Santiago, Caracas, Managua, Cortino, San Jose, Punta Arenas, Mexico City, Vancouver

#### DEANE BROTHERS, INC.

Home Building Division
P.O. Box "B," Newport Beach, California

OCCIDENTAL INTERNATIONAL CORPORATION
Piazza Quattro Novembre 5 Milan, Italy

OCCIDENTAL MINERALS CORPORATION 206 Park Avenue South, Winter Park, Florida

OXYTROL DIVISION 895 Mitten Road, Burlingame, California

GARRETT RESEARCH &
DEVELOPMENT COMPANY, INC.
1855 Carrion Road, LaVerne, California

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FIRST NATIONAL CITY BANK New York, New York

MONTREAL TRUST COMPANY Toronto, Ontario, Canada

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ARTHUR ANDERSEN & CO. Los Angeles, California

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PACIFIC COAST STOCK EXCHANGE

TORONTO STOCK EXCHANGE

#### **EXECUTIVES OFFICES**

#### THE KIRKEBY CENTER

10889 Wilshire Boulevard Los Angeles California 90024

#### TRANSFER AGENTS

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THE CHASE MANHATTAN BANK, National Association New York, New York

CANADA PERMANENT TRUST COMPANY
Toronto, Ontario, Canada

